

Aug 14, 1846

Prof. Asa Gray, Cambridge, U.^s

Dear Sir,

About 10 days ago, I received an incomplete set of Lindheimer's plants from Dr. Engelmann and a few days after, I transmitted to him a two Dollar note in payment of the same. I did it not to prove my readiness, but improve this opportunity of opening a correspondence with him. Although the lot of the Mohicans, the samples were in ~~the~~ fine condition, and were received with much pleasure.

I only regret that the set was not complete, as it would have been if my name had been put in time on the subscribers list. I hope, dear Sir, that I shall not be forgotten in the forthcoming distributions, not even in that of the Santa Fe collection, if you permit me to have my share of it. Could you not, occasionally, favor me with specimens, however small, of new or rare plants belonging to other sections of the country? I am very poor in Northern and North ^{Eastern} ~~Western~~ plants and in the few tropical plants growing on the seaboard of Florida, &c. & mountain plants.

I have examined my genus *Cuscuta*; Except those species I have received from M^r Curtin & Engelmann I have no other but the European & American. Not a single specimen from Rafinesque. Probably the package containing them was among those that were completely destroyed by rats in the garret of the auction store where they remained neglected for more than two years.

I am indeed very glad to see you hard at work on the North American Flora. I confess that I am not a little surprised not to see you, in true Yankee ^{Spirit} ~~style~~, go a head of DeCandolle's prodromus. It seems to me that, besides rendering yourself very useful to foreign Botanists, you would acquire a more extended reputation and promote considerably the sale and credit of your excellent work, by the frequent and honorable mentions that could not fail to be made of it in a work so generally circulated throughout the botanical world as the Prodromus is; a work the title of which may not be republished for half a century. I feel, however, that the mass of new plants constantly arriving to you from every direction renders the progress of your flora difficult and perplexing; but as you have the opportunity of publishing them in Willdeman's Journal, none can have the priority of you and you will have a larger stock for a supplement. Excuse the liberty I take of expressing my

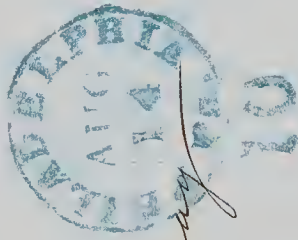
opinion.

I have a collection of autograph letters of most all our American botanists and some European. Could you favor me with those of DeCandolle, Focke & Long, of Endlicher, Kunth, Bentham, Lindley &c. &c. &c. What a beggar I am?

Believe me, my Dear Sir, Very
Respectfully your friend & servant

E. Durand

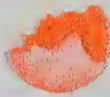
Phil. August 14th 1846.



Prof. Asa Gray

Cambridge

Massachusetts



Prof. Asa Gray, Cambridge M.

May 26 '48

My dear Sir,

Your letter of 24th March was received yesterday. I have, this morning, seen Carpenter who was in no way astonished at the neglect of Mr Nuttall. At any time you want the money, you may send him Nuttall's letter with the usual form "pay to order of", but at the same time, he requires you to specify on the note how it happens that Nuttall has left off the name of Carpenter—exactly in the same manner as you ^{explain} specify it to me in your letter; Nuttall's draft will be honoured.

I am, like you, expecting my share of St. Louis Plants; I hope they will soon arrive, as I have already a large parcel of California, St. Fee and Northern plants ready to place in my herbarium. Please to send me the largest parcel possible of Mr Spalding's specimens, and do not cease to consider me a subscriber to any collection of ^{North} American plants that can be obtained.

I have heard a good deal about your new genera illustrated; but I have not seen it—I am so busy with my business that I can find no time to occupy myself with botany; when Cary & Hart have received it, I will take one copy ~~surely~~ ^{probably}. You may even put my name as a subscriber and I have no doubt

that I will find you there or four more. Now, my dear Sir,
I hope you will go on with your N. A. flora, at least
that you will soon give us the sequel of the second volume
so that your subscribers may have it bound up. I well
imagine the causes of your protracted delay, you are
not willing to form an addenda nearly as large as the
work itself; still, when you have received the latest issues
from the Free & California, you will not have so much
to add. Nuttall sold me 300 California plants among which
is a fine Aster to which he has given my name.

I took the liberty a few days ago to give a letter
of introduction to you to a french naturalist sent by the
Musei d'histoire naturelle de Paris. That gentleman
was presented to me by the french consul and recommended
by him to my care. He is a modest and timid young man,
unfortunately speaking english very incorrectly. His mission
is to California & Oregon.

Believe me very sincerely yours

E. Durand

Philad. May 26th 1848,

I am very deficient in specimens from the Northern States, Canada
& Labrador, If you could procure me some, I would be thankful
to you.

Prof. Asa Gray

Harvard University

Cambridge

Massachusetts

Philadelphia Sept. 22^d 1848

D^r Asa Gray, Cambridge.

Dear Sir,

I received yesterday, by Mr. Agassiz, your favor dated 18th instant. I am sorry to say that, neither in my herbarium, nor in that of the Academy of Sciences, I have found the Astragalus Shortianus of Nuttall. The description of this filicott., as given in the North American flora, corresponds in many points with Fendler's n^o 148; but in others, it does not agree. For instance, my specimen, which is very firm, can hardly be called stemless, as it has 3 or 4 branches rising at least 2 inches above the neck of the root. The leaves are composed of from 10 to 15 pairs of rounded, oval, sometimes oblanceolate (at top) leaflets. The flowers of mine are conspicuously blue.

My intention has been for some time to write to you in consequence of a letter received from D^r Engelman, in relation to a probable error introduced in your manual, by confounding his Echinodorus parvulus with our Sagittaria parilla. To me, who judge superficially, ^{it is true} not being able to see the glaucous, I think with D^r E. that the error is probable. D^r E. requests me to examine our little plant in the state of inflorescence and to send him a diagram of the structure of the flower, as to the number & position of the stamens, & pistils and to send him also some specimens in ripe fruit. The first request, I have not been able to comply with, as I have not found a single specimen in flower, although large fields of it are to be met on the banks of the Delaware, just emerging anew from the mud. If the warm weather continues, I do not despair to see it in flower.

D^r E. differs also with you in throwing all the northern Sagittarias into a single species variabilis. He says that he finds at least 3 distinct sp. in the vicinity of St. Louis, viz: variabilis, heterophylla and simplex. I hold firm also to these 3 species, well known to our botanists, and

that 2 new species will be made from very queer looking *Sagittaria* of the interior of Pennsylvania.

1. We have the *variabilis* in all its forms and varieties. The obtusa of Willd. growing all along the tide-water shores of the Delaware, always dioecious, the var. pubescens in the bogs of the Perry meadows &c.

2. The heterophylla, with 2 varieties; The large ^{thick} oval leaf and the narrow lanceolate. The first grows in patches along the Delaware surrounded by the dioecious *variabilis*. The other grows along the Sch^d above the dam. Dr Porter brought me a singular specimen about twice the size of the *S. parvifolia*, with long lanceolate-lotter-leaves, petioles & peduncles arcuate, &c. which, from the pistillate whorls almost sessile, I place among the heterophylla; but may be a new species.

3 Our *Simplex* and *acutifolia* may be the same; still their aspect is different; the pedicels of the first are long and slender — the other are shorter & more erect. Their physiognomy is very different.

4 I have also a very singular specimen from the Mountain lakes, with long grassy leaves 12 or 15 inches, by 3 wide, not acuminate but terminating in an abrupt point, with a single leaf expanded in a lanceolate form. Mr. Wolla labelled it *graminea*. I have seen the very same fellow in the herbarium of the Academy, under the name of *rigida*, collected by Dr Schweinitz in the Lehigh River. There are kinds of appendages to some parts of the flower that are remarkable. Unfortunately my specimen is not advanced enough the flowers are hardly expanded.

There is also in the same herbarium a delicate *Sagittaria* labelled by Dr Pickering *graminea* with sagittate & lanceolate leaves intermixed. Some specimens have all sagittate, other all lanceolate leaves. This, I think, may be referred to the *variabilis*, which is frequently

exhibiting the oval or lanceolate flowers. But as to the heterophylla and *Simplex* or *acutifolia*, I think they are very distinct species. I do not say it from microscopic inspection of the seeds as Dr E. does; but from external observations. The heterophylla is as various in its forms as the *variabilis*; but its pistillate whorls are always tubercle. The scape has seldom more than 2, 3 or 4 whorls, generally 2 or 3. — The pedicels & lower part of the scape have annular lines or veins which are not seen in the *variabilis*, which appears only dotted. Since I received the arcuate sample of Mr Porter, I have seen a great number of specimens, not only similar to his, but some very minute, exactly of the size and shape of Dr E.'s *echinodorus*. Other hastate, others perfectly round and fleshy, half paper, &c. &c. but all have the characters above mentioned; grow in the same localities with the *variabilis*; ^{but not mixed with it} in the fattest mud possible, and they are propagated by it. The *Simplex* presents the same phenomena; it is a still smaller plant and never richer than 6 or 8 inches high.

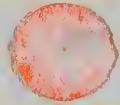
With these remarks I have the pleasure to present you
my most cordial & respectful sentiments
Yours &c. E. Durand

Prof. Asa Gray

Harvard University

Cambridge

Mass



Philad. Febr. 10 1849

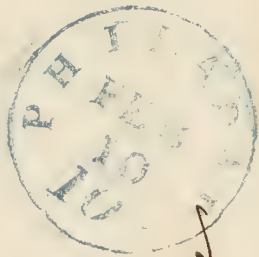
Prof. Asa Gray Cambridge Mass

Dear Sir

Your letter of 7th inst. with a package of
Tern & Oregon plants, have come to hand, and found
me lying on my back, with a broken leg, from a fall on
the ice pavement of the city. I have been 3 weeks already in
painful situation and may remain as long again, if not
longer. Be good enough as to draw ~~no~~ ^{the}
amount of these two lots of specimens. Spalding & Wright
as well as the ^{new} ^{own} Tern & Oregon received from ^{you} ^{will} ^{be} ^{sent} ^{to} ^{me} ^{if} ^{it} ^{is} ^{convenient} ^{to} ^{you}. As I am on my legs, I
won't send you a receipt; but my assistants are so busy during
my absence from the store that it will be more convenient
to pay the ^{new} ^{own} ^{cost} than to procure you one from this city -
I think plants will be by - according to your instructions.
I shall always be happy to contribute specimens to the
causes & results of our travelling botanists, and principally
to the contemplated exploration of the Salt Lake region
by a Mr. Fendler. Provided he be not taken by the yellow
fever of California.

I cannot write any longer. It fatigues me to be
by it with great pleasure that I have had you so working
at the flora - Believe me very sincerely yours
E. D. Merrill

Prof. Asa Gray



Cambridge

Massachusetts.

Prof Asa Gray, Cambridge M.

My Dear Sir,

I received yesterday, and have delivered, the package of plants directed to my care for Dr. Alexander. To this were joined two parcels of Mr. Baker's plants which you propose me to purchase for twenty three Dollars.

I have examined them and found them generally very good specimens, but I am sorry to say that, with the exception of about one dozen or more, I have them all in my collection, received from Messrs Thurnber & Olney, or formerly from Dr. Pickering. Some of them would be a good acquisition as finer specimens or as an addition to a single specimen, but 23 Dollars would be too high a price for them. I will endeavour to sell them for you, (but without much hope) and will keep them subject to your order. If, however, the family would accept \$10 or 12, I would probably keep them.

I have delivered, all but one, the 2^d Vol. of genera which you sent me some time ago. It is excellent and that work, if ever finished, it will be a splendid work! Dr. Marton's family is now in Europe and the house that I shall I keep it until they return? I have 24 Boks^l collected for you; Miss Morris of Germantown, D. B. Smith & the P^a Hospital have not yet paid.

I have done nothing in botany this year. I have not yet received a share of plants which ^{Dr} Englemann told me, last spring, he was ready to send me. Has he died of cholera? I feel lazy and old since my accident and the circumstance of having removed my library & collection in a 4th story room of a house where I have moved last spring, has rendered my visits to that sanctuary more difficult and rare.

Believe me very sincerely yours

C. Durand

How are you going on with the North-American flora? Could you not bring it to a level with DeCandolle's Prodrôme? I hear hard words, occasionally, against you and Dr. Torrey; but these clouds will soon disappear when the next number will throw its light upon that part of our obscure flora.

Phil. Sept. 27th 1849.

Prof. Asa Gray

Harvard University

Cambridge

Mass.

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Philadelphia Oct. 19th 1849

Dear Sir

Inclosed my check for 60 Dollars amount
of Oakes' plants - - - - - \$20. "
Mr Fisher's subscription to 2^d vol. G. Ann. 6. "
Miss Hagner. " " " " 12. "
Pennsylv. Hospital " " " " 6. "
E. L. " " " " 6. "
J. B. Smith " " " " 6. "
Miss Morris " " " " 4. "
Rev. Mr Potter. " " " " 0. "

\$ 60. "

After putting aside 125 specimens of Mr Oakes' collection,
which I had not, or which were tempting by their beauty
and general scarcity; this making in half of the price
you were asking, I have concluded to retain the whole
for \$20, as required in your last note. Miss Morris told me
she had paid ^{previously} two Dollars on the 2^d vol - and Mr Potter,
Had settled for the 2 first volumes with you. Thus the
inclosed check will settle the whole matter. Please
to acknowledge the receipt of 60 Dollars. Dr Engelmann
had, last spring, written to me that he was ready to
distribute to subscribers certain collections from the

far west. I have seen nothing as yet. I presume
The great fire and the cholera have prevented him
from fulfilling his promise. I regret ^{that} ~~that~~ ^{the} ~~the~~ Feaster
has given up his exploration - Some of the Salt
lake plants would have nearly completed my
Collection of North American plants.

For God's sake finish the 2^d vol of your
flora, that I may have the two bound together; they
spoil, divided as they are.

I have not yet received my plants from
Dr. Torrey - Their absence form a great gap in my
Herbarium, which I should like to replenish.

Respectfully yours

E. Durand

D. B. Smith has not paid me as yet, but
He will do it - Perhaps is he absent from the city.

Prof. Asa Gray
Harvard University

Cambridge Mass

Prof. Asa Gray, Cambridge.

Dear Sir,

This is to inform you that Mr. L. C. Potter, who was here last week, has, at my request, taken the 2^d Vol. of your illustrated genera intended for Mr. Barton who will not return for some time. Mr. P. tells me he has paid this second Vol. in advance.

As soon as I have been paid by Miss Haynes, Dr. R. Smith & the Penn. Hospital, I will send you \$2.00, which will settle the whole amount of your invoice. I have offered Baker's collection to several amateurs, James & Mr. Potter included, but all find that there are too few rare things for the price.

Very respectfully

E. D. Inaud

Nik Oct. 22 1849.

Dr. Anna G. B. B.

Harvard University

Cambridge Mass

Prof. Asa Gray, Cambridge.

Dear Sir,

Enclosed, I send you a check of forty Dollars on Farmers & Merchants Bank of Philadelphia to pay for the set of plants which you have been good enough as to reserve for me in the second collection of Mr Ch^s Wright. I thank you for having left out the specimens which I had already received from Lindh. and the first of Ch^s Wright's collection. I assure you that I have many duplicates of these Texas plants, having received, besides the above, two large envoies from Dr. Hale, upper Louisiana, Nuttall's Arkansas collections and a private collection of a friend of mine in Maryland.

You are really a most zealous and indefatigable labourer in the field of Botany. Great praise is due to you, indeed! — With all you have done already and what you have still in hand, You will be the Northern Star of American Botanists and your name will rank with the most illustrious in our Science. Make! Make!

How can I procure the numbers of Smithsonian Contributions in which you are publishing your enumeratio? Please to remember, my Dear Sir, that I trust in you for receiving all that will be published on North American plants.

Do not forget me, in future, for the collection of Wright in Utah and those that may be forwarded to you from Oregon

to the Rev. Mr. Spalding. If you see Mr. Nuttall, remember
me to him and ask him whether he has received a small
package of plants, collected by Fendler in his last unfortunate & short
expedition, which Dr. Englemann forwarded to me with the last
survivor of Lindheimer's specimens. I gave it to the captain
of one of our Liverpool packets and wrote to Mr. Nuttall
to have it claimed from the captain.

I have been hard at work for the whole winter and spring,
in arranging my collection and changing the papers. I have
adopted a larger form. It is astonishing how fast they
accumulate upon you by exchange & purchase. I have now
over 60 volumes, & fall to sorting. I have enough in the over-
ful to form 10 vol. more. I sent a large trunk full of
grasses & genera to Mr. Carter to arrange them for me,
which he has done to my great satisfaction.

Farewell, my dear sir, and believe me respectfully

your devoted friend

E. Darland

This May 29th 1850.

I hope Dr. Darlington has not forgotten
to ask you for the second no. of your illustrated genera for
Mr. Sauer, who had not yet received it some time ago.

Prof^r A. A. Gray

Cambridge

Massachusetts.



Philadelphia Nov. 8th 1852

Prof. Asa Gray, Cambridge, Mass.^{ts}

My dear Sir,

I have before me your favor dated 5th instant. I feel much obliged to you, indeed, for your kind offer of a new set of plants from W^{ts} Wright's Collections made in Texas in 1851 & 52. I have, dear Sir, several reasons for declining this favor, which I acknowledge with many, many thanks.

1st. I have given up my Store to my son, retiring from business with a moderate income which does not permit me any longer to indulge in those delicacies that the good mill of the corner of 6th & Chestnut afforded me heretofore.

2nd. I have already so many duplicates of Texas, New-Mexico, Oregon and California plants, that I am afraid to increase their number by the acquisition of that new set. I would rather pay more for each specimen and limit the number to those plants only that I do not possess as yet. I think this would make no difference whatever to new subscribers that have not partaken of the previous sets, and it would add so much more to the sum intended to indemnify W^{ts} Wright of his trouble and expense.

3rd. I have, from different sources and exchanges added considerably to the specimens I have received through you from the far west regions.

In retiring from business, after a laborious and faithful career of 23 years, I had in view the employment of my time in the study of botany and the arrangement and keeping of my large herbarium and in other labours which my re-connexion with the Academy of Natural Sciences might afford to me. I had hardly set my foot across in the halls of the Academy that I found three collections of plants made by Dr^s Heermann, Woodhouse & Kern, in expeditions through Texas, N. Mexico and California. These collections were immediately confided to me (not as the most able, but as the most willing and most unoccupied) to put them in

Philadelphia June 21th 1854

Prof. Asa Gray, Cambridge. M^{ts}.

My dear Sir,

Our friend Th. P. James, starting tomorrow for the North and stopping at Cambridge purposely to see you, I do not hesitate to trouble him with a package of California plants, which I desire to submit to you. They have been brought by Dr. Heermann of this city, who has entrusted me with the care of ascertaining their names. Although I do feel incompetent to the task, on account of my poor eyes that are not capable of using lenses, and also for the want of books of reference, still I desired to try what I could do.

I have found it more difficult than I expected, especially to distinguish the minute and delicate points of dissemblance between certain genera of *Corymbiferae*, and I had to call the assistance of young Dr. Helgard, nephew of Dr. Engelman, a very clever young Botanist. My intention was not to send you these plants before having studied them thoroughly and given them all the names which, in my judgement, belong to them; but the opportunity offered by James' visit to Cambridge is too favorable not to take it up. Consequently I have packed them in a hurry with simple pencil marks on the papers. My notes and descriptions of the specimens I consider as now, are not in a condition to be transmitted to you.

You will find half a dozen or more of these plants marked New so far as my references go, they appear so to me; but I fear

They will all be familiar to you who have seen so much and are so well provided with books.

The first is an Argemone with a 3 sepal calix, bearing 3 or 4 heads and as spinose as your A. hispida. Should it be the grandiflora of Lindl. whose calix you say is not spinose? The leaves are somewhat similar to the Mexicana. If new, I call it Heermanni.

The second is a Malvastrum? which I call maruboides from its resemblance to the marubium.

The third is a Hosackia, I believe, which I do not find described. it looks much like a Lathyrus. The H. decumbens, var. glabrescens, I. is the same plant as Spalding's specimen, labelled by you, H. (Syrnathium) decumbens. I do not recollect in what it differs from the description of Endlicher's Syrnathium. I find it very dissimilar to Nuttall's plant labelled Hosackia decumbens - and if Nuttall's plant is the truncatumbens, certainly this, my plant and Spalding's, are a distinct species. The legumes are generally uniseeded, sometimes 2 seeded.

The fourth is a Sambucus which I do not see described.

The specimen labelled Galatella has given me much trouble. I have handed it to Dr Hilgard who thinks it is a Galatella. I find no species answering to it in Decandol, nor in your publications. The Aster, I have not examined as yet - nor other Corymbifera, belonging mostly to the genus Paccharis - all of which are now in the hands of Dr H. The plant labelled Eriameria, is not, I think. There are four species of Hemizonia or congeners, which I have not sufficiently examined.

The fifth is a new? Navaretia which I call vestita from

the tomentose coating covering the calix, &c.

The antirrhinum and anarrhenum I have not looked yet whether they are described or not. I wish they are new.

The Cordylanthus filifolius was found out by Dr Hilgard, as well as what he considers a new genus. which, on account of its habitus he has named cerastodium. Spec. Heermanni.

Trichostema lanceolatum - has been a puzzle - if it is not lanceolatum, let it be called odoratissimum - see what strong and pleasant smell it has.

Now, am I right in Obione occidentalis? I had seen ^{this plant} in all the collections from California and New Mexico, but I had never been able to make it out. The Pterocarya canescens of Nutt. has put me on the scent; but Pterocarya of DC. belongs to the family Polygalea and it was a great jump to look for it in Salpiglossis.

What is the plant marked croton? it is evidently a euphorbiaceae which I have not yet examined. I have marked it croton as I have the same plant from Nuttall thus marked (R. 125).

The 5 or 6 erigeronum, I have not examined - I think two of them are illustrated in Fremont's report by Dr Torrey.

I write to you in a great hurry, my dear Sir, so, excuse my bad english and recollect that a frenchman and not an american, is writing to you. Oblige me to investigate those plants as soon as possible, so as to return them to me by our friend Luccas, who will return in a few weeks - they are wanted by Dr Heermann who has a report to make. With the expectation of seeing you during your vacation, at 116 South 9th St., I remain very respectfully yours,

E. Durand

Professor Asa Gray

Friend
of Th. P. James, Esq.

Cambridge

March 9

June 23, '54

Prof. Asa Gray, Cambridge, Mass.

My dear Sir,

Although I have frequently referred for information to the two first numbers of Plantae Wrightianae, it was only yesterday that, perusing the entire description of the new genus Mortonia, I read the complimentary notice in regard to me, with which you terminate this paragraph.

I thank you warmly for the sentiment expressed and, if I regret your being anticipated by Mr. Planchon in the employment of the name Guraidea, it is more on account of that speakeable and heartfelt testimony of your particular esteem, than from a sense of worthiness on my part. How little do I feel by the side of that illustrious man, Dr. Morton, with whose name you have honored that beautiful plant!

I sent you, the day before yesterday, in a great hurry, a ^{small} parcel of plants collected in California by Dr. Heerman, during a military expedition across the Continent. Dr. Heerman is a good ornithologist, herpetologist and God knows what else; but he is a poor collector of plants. His specimens are scanty and imperfect. He requested me to determine them for his report and I accepted, trusting in you for assistance. I had hardly begun my task, when our friend James apprized me of his departure, in a few days, for Cambridge where he expected to see you.

The opportunity was indeed too good to neglect it, in as much as he promises me to bring them back, when he returns. Be so good, my dear sir, to examine them at your leisure, to point out my errors and save me from others, by giving me at once the names of the ^{plants belonging to} lost families, for the study of which I have no books of reference.

The four or five corymbiferous plants which I have sent you under the doubtful name of *Baccharis*, seem, from the inspection of Dr. Hilgard to whom I had given a few heads of them, to belong to the *Linosyris* (*Chrysanthemum* of Nuttall) But I find no specific description of them in your publications. The specimen marked *ericameria* is very beautiful and interesting. My *Hosackia latifolia* is blown up, I think, by the *lotus pinnatus* of Hooker, mentioned by Endlicher.

The specimens are so scanty that I cannot say "help yourself liberally"; But you will do your best to make up a sample for your own collection, should any of these plants prove new and interesting to you.

I repeat, my dear sir, that I anticipate great pleasure in receiving your visit at No 116 South Ninth Street, if, during your vacation, you come to our city. I remain, sincerely
Your devoted friend
E. Durand

Young Dr. Hilgard will prove a good acquisition to Philadelphia. He is a mild, modest and very learned young man.

I have great many plants of Lindheimer and Wright's collections of which I have not seen the descriptions. Have you not published more than two numbers of *Plantae Lindheimerianae* and *Wrightianae*? if you have any, I beseech you, to procure them to me. I wrote to Washington to procure all the botanical reports that have been published by the Government; but I fear they are difficult to obtain.

Philadelphia June 23^d - 1854.

Saturday 12 Aug- 1854

Prof. Asa Gray, Cambridge.

Dear Sir,

I thank you for your notes on the California plants which I submitted to your examination. I send you small samples of those we have thought, Dr Hilgard & myself, to be new species. I am sorry that the collection by Dr Heerman has been so sparse as to make hardly 2 specimens, one for Washington, the other as a recompense for the trouble of describing them; but in scientific matters, all for the public! Young botanists, as myself, without much experience, are very apt to increase the number of genera and species, when they have but the shadow of a cause. Dr H. has insisted upon making a n.s. of our argentea. We have found, on comparison with the mexicana and the grandiflora that it differed from both by its shorter peduncles, the form of its leaves and their great glaucousity (almost white). It may, however, as it is your opinion, be simply a variety of the mexicana. I have in my herb. a specimen of mexicana, var. alba, almost spinulosa, which I have collected in a garden and seems the very pattern of the figure of Lindley's grandiflora; but ours is remarkable by the above points and its spinosities on every part. I pray you to pay a particular attention to our Linosyris rivera and ericacea. Our little cerastodium is in the hands of Hilgard who studies it with his microscope. I will send you a sample in a letter. We will, I think, insist upon making a new genus of it.

I have all Nuttall's Honackia.^{about 30 specimens.} I send you several specimens of his species which I think are, in several instances, the only specimens in the country. I send you also several Ericacea which I cannot make out. Please to return them as they are all I have of the same

Mr James put in my hands your letter requesting him to send you, from the herbarium of the Academy of N. Science, a sample of the Leucothoe acuminata. I went there and found, in the sheet marked L. acuminata, about four distinct species, but not the Laurina of Michaux. The pipe stem variety species was there, a unique specimen which I proposed Dr Fautzinger to lend you; but he opposed it, on account the by-laws of the Academy and I had some trouble to be permitted to send you 2 leaves and a corymb in a bad state. Secoute was there and said that this hollow stem specimen was the true acuminata.

Not entirely satisfied ^{with} being refused a sufficient specimen for you in this quarter, I asked to see the herb. of Secoute, given by him to the Acad. expecting to find there numerous specimens and, being with the donor, to be able to ^{with his agreement,} subtract one for you. I had never seen L.'s herbar. and I expected to find a full and handsome collection of Southern plants; But Heu, me miserum! I found a smallissime specimen in large sheets of paper, which I would not place in my own herb. There was among them an unique and small specimen of a plant labeled Andromeda acuminata, widely different from the specimen down there which I had asked for was the true acuminata. How is it, major? Well, said he, I must have had some reasons to label it so, as I have studied this genus thoroughly; let us compare and study them. We found in fact that the acuminata of Thos Elliott was not the acuminata of Ait, the formosissima of Benth. nor the Laurina of Michaux. Secoute's specimen was the 3 last and consequently the true. The stem pipe wood is another species. I got 2 leaves and a corymb of the latter, of which I found 2 specimens in my herbarium in fruit, the other in flower, which I send you. Michaux's Laurina is well named. the leaf is exactly similar to that of the Laurus nobilis.

The spinulosa of Thos of which I have five specimens seems to me nothing but a variety of the axillaris, with longer, narrower and spinulose dentations. I send you several others of my ericaceae for inquiry. The mylocarium ligustina of Willd. is, certainly not, the Lyonea ligustina of Decandolle, nor the Picris phillyreaefolia of the same, or I have two distinct species? of mylocarium? James is going to write to his friend Ravenel to send you ^{good} specimens of Leucothoe acuminata.

I expect to see Dr Torrey, who has announced his visit to Phil. to Fautzinger, with the view of examining the new genera of Corymbifera of Nuttall. They have not them in the Academy; but J. wrote to Dr Torrey that he thought I had them. I believe I have - at least 2 or 3 new unnamed new genera.

Very respectfully, my dear Sir,
Your humble servant & friend
E. Durand

116 South 9th St -

I find nowhere in Decandolle the name of Mylicarium. I thought that the Myel. ligustinum was the Picris phillyreaefolia &c. but it is not. What is it?

Direct that a new package be sent to me.

Phil. Aug. 16th 1854

Prof. Asa Gray, Cambridge.

My Dear Sir,

I have just returned from Westchester where I had the pleasure of a long conversation with Dr Darlington, who, a few days before, had seen James. The subject of your letter to him had, of course, been introduced and was renewed by the Doctor. Thinking that his plants might be interesting to you, he brought me at the railroad cars a small package, which I have opened as soon as I have arrived, to compare with my and record. I now send them to you with new specimens from my own herbarium and a few pencil notes. To these I join our n. genus Cerastodiscum and the new Castilleja. These are for you; but I add the same request as Dr Darlington, for the others which are the only specimens I have. If however you find any duplicate that may be agreeable to you, you are welcome to it and them.

Very respectfully P. Durand

Phil. 26 Sept. 1854

Prof. A. Gray, Cambridge.

Mon Cher Monsieur,

One month has past without answering your obliging letter of 24th & 25th ultimo. In the first place, I was expecting the return of our friend James to hear about Dr. Darlingtown's specimens of which you had not said a word in your letter; and in the second place, I was desirous to inform you of the alterations we should make in our report, in consequence of your good advice.

I confess, my dear friend, that your insistence in unmercifully breaking down our cherished Corethrogya nivea, vexed me considerably. Having under my eyes two specimens, one marked by Nuttall C. Virgata and converted by you, in your own hand, into C. tomentella, and another marked by Nuttall himself C. tomentella also, I was somewhat entitled to say that ours was not ^{your} ~~the~~ tomentella and that, in this respect, you had not examined it with ^{sufficient} attention. Insisting, of course, in our former view, we began a new examination; But, lo! we could not find any more those wide rounded leaves which we had described so minutely; instead of them, we found several withered leaves, lost in the tomentum of the stem against which they were adhering (about 2" long and linear lanceolate) which before had escaped our observation. Oh! then we began to doubt our sagacity and we returned to the description given in your flora, which answered our purpose. It appears that the round, short and semi ampelike leaf we had studied, was no more than a symmetrically broken leaf with a rounded fracture and regular indentations.

As you say, my dear sir, this genus requires revision! to me, who judge more physiognomically than otherwise, not being able to see the glass, I see two very distinct types in the four species I have in my herbarium. The filaginifolia and virgata of Nuttall (which I take now californica, Benth. belong to one category; ^{perhaps} our tomentella and virgata of Torr. & Frem. belong to another. I can no

more look upon those two pairs as congeners than I can a round headed Dutchman and an oval faced ~~red~~ blooded Celt. Look on one side at the large ^{involucres} hemispherical ~~head~~ of the former and the delicately turbinate one the other, and you will be satisfied that, although they have the same neutral ligulate flowers, still they have no typical likeness. The same might be said of the genus *Dieteria*. If the leaves of the two first *Cordstroegum* were not simple, I would say they are *machoeranthus*; whilst the others look like some species of *Dieteria* with turbinate involucre.

Our *Argemone* we have made a variety of the *Mexicana*

Our *Hosackia Heermanii*, we have made *orbicularis*, Torr. ined. With the restriction: "if not, *H. Heermanii*". We have compared it with Nuttall's *Drepanolobus parviflorus*, which is undoubtedly your *H. micrantha*, they have no more relation to each other than to the decumbens of Nuttall. The *D. parvifl.* is quite a small plant, ^{of the small} hemispherical like some *Euphorbiae*, with very minute flowers and leaves, ^{not much bigger than 1/2 of ours.} I had occasion, in an answer to a letter of Dr. Torrey, to send him a specimen to compare it with his plant; but he has not favored me with an answer.

The *H. Wrightii* you have found with the *Physalis micrantha* ^{without name} was not thereby mistake, I sent it to you to know what it was. I received it from Dr. Heerman's former collections in Texas.

I am a bad judge of colors and call frequently blue what to others is violet; Hence my mistake in the color of the flowers of our *Malvastrum marianoides*.

We have retained our *Sambucus Vernicosa*. I think there is very little difference between species and variety, when the character is constant. According to Heerman all the *Sambuci* he found in that region are tomentose. The leaf of the *Mexicana* is thin and glabrous as our *Canadensis* and our *Sambucus* has thick and coriaceous leaves. The berries are dark purple and very agreeable to the taste; if I am not mistaken the fruit of *M.* is green.

Our *Gutierrezia cyparissia* is exploded, although I do not see the ovoid form of the head of flowers so characteristic ⁱⁿ of the other species. It is owing, without doubt to the more advanced state of inflorescence in our specimens which have almost cylindrical heads.

The *Linaria recurva* we have changed in *cerundosa*, on account of ^{yellowish} ~~silky~~ tomentum, similar to ear-wax, which covers all its parts. Besides the leaves of the branchlets only are recurved; those of the stem are straight.

You have let us Wright in the *Cerentodium*; it is most probably a *hirsutum* which we have called *exilis*. It has not, however, the habit of this genus and might belong to another; but it is not in a state to be examined with satisfaction.

Our long leaved *Adelphias* we have ascertained to be the *macrophylla*, Nutt. a variety, *comosa*. *Gilia elongata* differs somewhat of Dr. Torrey's description.

Antirrhinum Coulterianum we have made var. *appendiculatum*. *Heuchera* needle, no allusion to the appendix existing in all our specimens.

Dr. Torrey from whom I have received two letters has not said a word of the *Obione* and *erigoulum* of which he took small samples when in Cambridge. We have made a new spec. of one of the *Obione*, the other, we think is the *Barclayana*. With 3 *Eriogonum* we find no description of the others in Hooker, Nuttall, nor Torrey.

Major Lacouture has requested me to send you his description of the *Andromeda acuminata* (the true) made on the living plant.

Folii lanceolatis acuminatis, acutiserratis; supremis integerrimis, marginibus subserratis, coriaceis, lucidis, glabris. Racemis parvis, 6-8 flor. simplicibus, axillaribus, subsessilibus; Pedicellis bracteatis; Floribus confertis; Corolla alba, subarcuata; Calyx ebracteatus; Stamina hirsuta; antheris non aristatis. Ranis fistulosis.

With all this, my dear Sir, I bid you farewell and thank you warmly for your obligations.

Very respectfully your friend E. Durand

Professor Asa Gray

Harvard University

Cambridge
Mass

Phil. 2 october 1854

Prof. Asa Gray, Cambridge, Mass.

Dear, Dear Sir,

I do not know how to express my gratitude for the indulgence and condescension you bring in your correspondence with me, in reference to my rash botanical undertaking. I have not a sufficient theoretical knowledge of the science of Botany to discuss any important point with you; but having confined myself to North American plants and having handled many of them, I have acquired a physiological tact which enables me pretty well to find out ~~any~~ the family and genus to which a plant, seen for the first time belongs. I am unable to study the minute organs for want of a good sight. You, therefore, see my deficiency as a botanist and you will forgive the great ignorance I evince in these matters. If I could use the microscope, I think my zeal for the science could carry me along.

My mind was perfectly made up as to my corethrogyne being your toментella. I have attentively read your remarks both in your letter and Hb. N. and I thank you for them. At your next visit to Philadelphia, I will thank you to see if I am right now. I have in my herbarium four species of Corethrogyne. N^o 1, marked by Nuttall C. tomentella, Aster tomentellus H. & Arn., St. Diego, is the same that Nuttall had labelled virgata in herb. Acad. Science. and you had corrected in your own hand toментella. It is evidently the incana of N. Am. Fl. with linear-lanceolate, erect and slightly denticulate leaves; scales glandular-veined with spreading tips. N^o 2, marked by Nuttall C. filaginifolia, Monterey, with spatulate, and sharply denticulate leaves, is right. I have no doubt. These are the two I compared to a round headed Dutchman. Their involucre is hemispherical and the head much larger than the following. N^o 3 is the C. virgata, Benth (Fremont's plant) I dare say; then the 4th is our plant. It is not necessary to send me yours, I hope I shall see them next

Spring at your own house.

I send you herewith three samples of Horackia, very small etc, is true, but you know how enigmatic are the specimens of Nuttall. One is Nuttall's Drepanolobus tomentosus, the other is his parviflora which I have no doubt is the Horackia micrantha of N. am. flora, the third is what Nuttall calls H. decumbens, Benth. with long pedunculate umbels. You will see that my H. Heermannii has no ^{thing to do with} congeners among them. If Spalding's plant H. (lyrata) decumbens is the same as Benth's plant - I go back to my first idea, our plant is its variety glabrescens. I beg your opinion upon this subject. Of the 24 or 25 Horackia I have in my collection, most all have long many seeded legumes, except inje, which is, generally, 1 seeded and rarely 2. Spalding's sample, which is generally 2 seeded and the decumbens of Nuttall, which ^{may not be Benth's} is 2 or 3 seeded. Another one has a flat 1 seeded legume.

I renew my thanks to you, my dear sir, and believe me very respectfully your friend and servant.

C. Durand

I am now thoroughly at work to form a special American herbarium for the Academy of Sciences; it will be rich in far Western plants.

Phil. Oct. 16th 1854.

Prof. A. Gray, Cambridge

Dear Sir,

I rejoice that my bits of *Hosackia* have been a pleasure to you and of some use; That sent by you is truly our *Heermannii* which we give as synonym of *H. decumbens*, var. *graciliscula*. We decidedly make a new species of our *Argemone*, which we call *manita* on account of his numerous defensive weapons. It differs so much from the *Mexicana* in the texture and habitus of its stem, branches and leaves that we think ourselves justifiable in so doing. You will set us right at a future time if we are wrong; When you have occasion to see better specimens. We are going to publish all the new species and varieties in the proceedings of the Academy, en attendant that the whole appear in Dr Heermann's report to Congress.

I can give you no information whatever about *Helogyne*. I have looked in vain for it in the herbarium of the Academy, although figuring in the index. I presume Nuttall took it away with him when he returned to England.

I send you enclosed a bit (there are only 3 such) of a succulent aquatic? plant, without leaves only with long acute bracts nearly as long as the stipitate head of flowers figuring a corymbiferous plant, which I have found in an old pack-sack from Dr Short, with the following inscription: A plant from Mississippi unknown to Drs Torrey and Gray; do you know now what it is? I am much obliged for your kind invitation and remain very respectfully your friend E. Durand

Phil. Dec. 4th 1854

Prof. Asa Gray, Cambridge.

My Dear Sir,

With this, you will receive my first botanical essay, written in connection with Dr. Hilgard. Please to look at it with indulgence and be not offended at the mention of your name in the description of our *Argemone munita*. Since I have seen it in print, it looks to me as an arrogant presumption on our part and an infringement to your great authority, which we were far from intending. The specimens passed rapidly under your eye, and we had them a long time under examination. I have since seen another such specimen in another collection and I am the more persuaded that the habitus and texture of our plant are more like those of the *Argemone leucopurpurea* than of the *A. mexicana*.

Another collection of about 200 spec. was lately put in my hands by the Academy of N. Sciences, which I have arranged in families and am now cursorily examining. When this first part of the work is done, I hope, my dear sir, you will permit me to submit those plants to you, that you may point out our errors and what is new among them, before I undertake, with the assistance of Dr. Hilgard and his microscope, the more serious task of determining and describing, in which I hope to be more successful than in the first attempt.

As the collection has been made by an amateur, the specimens are of course, generally very imperfect; still there are many beautiful, rare and perhaps new plants: among them; I recollect the following:

Aquilegia formosa, Nutt. *Asters*, with good spec. of *A. Durandii*
Delphinium, 4 sp. (indicanth, bicolor, &c) *Sericocarpus*, new? aff. *lotinifolius* with
Dietytra formosa. very large heads of flowers.

Viola, 4 spec. 2 Curious caulescent, one *Fraseria albicaulis*.
with long decumbent stems, with above *Azalea*, with beautiful large flowers
dances of yellow flowers and leaves *Polioconiaceae*, many
very large, variously shaped, the most *Prophulariaceae* "
prominent of which are almost of the *Labiatae* "
true shape of a human hand; 2 *Eumans*
The other with round, many parted 2 *Asclepias* (*longicornis*)
leaves similar to those of *V. Delphinifolia*. 4 *Eriogonum*, which I have not

Hypericum, 2 spec. in my 30 odd species.
Spraguea, only an umbel. *Trideae*, *Amaryllidaceae*, *Liliaceae*
Ceanothus, 5 spec. one a shrub with leaves *Colchicaceae*, &c. &c. among which
3, 5 dentate at top. *Brodiaea*, *Tritelleia*, *Callioprota*, *Calla*
Osackia, 4 sp. one the true *grandiflora*. *Chortus*, *allium*, *Lilium* &c. and
Lupinus 6, " one *falsifer*, Nutt. several other genera with which I am
Thamnobatia, Benth. published by Torrey. unacquainted. large and beautiful

which I had pointed out at once as specimens of a *Veratrum*, perhaps *viride*.
a new genus of the *Cercocarpeae* But of all these plants, that which I was
tired, and was describing, when I most happy to discover, was the *Picker-*
received the 1st. publ. publication. *ingia montana* of which I have 2 small
Saxifraga, 2 or 3. spec. specimens. They are for me a remembrance

8 or 10 umbelliferous plants, among which 2, any-
lice tribes. of the same of a much respected friend.
Osmorhiza with short reflexed styles and being terminated by a spine, the fls.
leaves very different from the *brevistylis*. few in short axillary racemes, I thought
Coccyus Nuttallii for a while that I could furnish you the

means of completing your description of that new *Leguminosa*, but the pinnate
leaves, instead of terete, made me look elsewhere.
I have received the package of *Plantae novae Thurberrianae* and
affinities of the genus *Vavoea* and of *Rhytidandra*. I thank you for the
copies addressed to me; I have distributed the others without loss of time.
Remember me to Mr. Thumber, when you see him; He is an old
acquaintance and I beg him, if he has any duplicates to spare,
of his California plants, to send them to the Phil. Ac. of Nat. Sci.
I am working hard in completing a special N. am. herbarium
from all the collections I found there (Conrad, Leconte, Read & others)
from the large herb. and my own, which I cannot sacrifice in a
better cause. If you have yourself, my dear Sir, anything to
spare, I am better disposed to beg for others than for myself. Do not
forget, if you please, to enlighten me on the queer specimen I send
you some time ago, collected by Short in Mississippi and labeled
unknown to Torrey & Gray.

I am with much respect your devoted friend
E. Durand

1
Cea

Prof. Asa Gray

Cambridge

Massachusetts



Phil. Dec. 18th 1854.

Prof. Asa Gray, Cambridge.

My Dear Sir,

Your favor of 6th inst. has duly come to hand. I thank you much for your kind remarks and for the errors you have pointed out. Both are mine. No doubt you will discover many others by perusing it again and you will oblige us to point them out, that the publication of our full report be less faulty.

The great defect of our labor is that we were working separately, which must be altered and corrected. The whole was done in a great hurry, without having time to revise conjointly, as Dr. Heermann was on the eve of his departure for another exploration and hurried us awfully to deliver all his reports before starting. We were also hurried by the publishing Committee of the Acad. of Sc. who had their journals under press. Besides it was the first attempt of Elmer at describing and writing Latin and we had no time to submit our labor to the revision of competent judges.

From Heermann's notes, I see on the Chart the route followed by the Expedition. Most names are new. It started from Buena Vista in the beginning of July, ascended the San Joaquin river to Lake Tule, crossed King's river one of the feeders of that lake, ^{then} the Mohave river and descended to the Californian Colorado which they crossed some 80 miles above its junction to the Gila. Hence they entered the country of the Teyon Indians where they found the Teyon Valley & Pan and passed down the Pinos villages on the Gila river. Posa Creek must have been between the Colorado & Gila. Fort Miller, a new Fort, having been a starting point, must be on the San Joaquin river.

I rejoice, my Dear Sir, in the hope to see you soon in Philadelphia. As I know the claims of our friend Faxon upon you, I do not insist upon your accepting a room at my house, but I hope you will not refuse a dinner with Faxon and Dr. Hilgard with whom I am very desirous to make your

acquainted. We will spend our morning in looking over my Californian
plants and then rest ourselves merrily. Do not refuse me this favor.

Unfortunately I have no fruit in my two small specimens of *Pithecellobium*.
I see, however, in a flower far advanced the protruding apex of a legume
which may prove of some service. I shall not touch it before your arrival.

I have discovered another error: The specific name *geniculatum* had
been applied by Nuttall to an *Eriogonum*, before us. How prolific
is California in this puzzling genus; I have five other specimens different
from the 50 or 60 species which I have in my herbarium or that of the
Academy of Sciences.

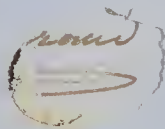
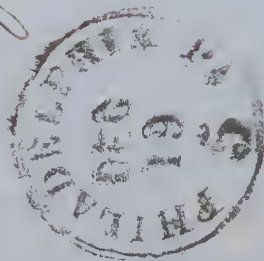
Very respectfully your friend
E. Durand



Prof. Asa Gray

Cambridge

Warracotts



Philadelphia Febr. 16th 1855

Prof. Asa Gray, Cambridge.

My dear Sir,

I find it almost impossible to make an interesting paper with the few new species that I find in the collection now under examination; It would be too short and in order to give it more interest, I have introduced in it all the plants described by Mr. Beatham, or by ^{in H. Hartw. which you pointed out} yourself and Dr. Torrey, unpublished. Your manuscript descriptions I expect to have and Dr. Torrey has already sent me the diagnosis of my two violets; but not being possessed of *H. Hartwegiana* which is a very rare work in this country and not being very ^{as a mistake is early made in such cursory examination as that you make} certain that the name affixed to my plant is right, ^{with B. s. name X?} I have made a description of my own plants, which, when compared with Beatham's, will prove at once whether I am right or wrong. If wrong the plant will be mine, except its name. As in our maiden paper, I also introduce plants already described in your flora, on which I have some observations to add. Tell me frankly the defects of my plan? I would give anything to have *H. Hartw.* Should it be for one Doyle - I will try to obtain Dr. Torrey's copy. I have been as far as campanulaceae ^{in my examination} and have passed my work to Hilgard for new observations. I received, at last, an answer of Dr. Torrey and I will communicate to you some of his observations.

I have 4 or 5 specimens of the plant which you considered as *Helianthus multiflorus*. They are all with flowers, without any branches. I have not studied it yet; but on comparison with a good specimen of true *multiflorus*, it appears somewhat different.

Upon examining carefully the 3 erginus, asperum, arkansanum and elatum, the two last from Nuttall, the other undoubted, being caescent, I have come to the same conclusion with you ^{that} They are one species ^{only} more or less scabrous, ^{one slightly caescent} with dentate or entire cauline leaves and dentate emarginate radical leaves. Dr Torrey's Violet is as you said, Beckwithii; Benth's Violet is lobata. So far as my eyes permit, my Polygala is cuscutata, it is in Hilgard's hand, as the microscope is wanted. I have a new Silene with orange flowers, ^{from Heermann, Calaveras,} which you have not seen, I call it aurantiaca, let me know if Benthams mentions it - about 7 inch high erect, 3 large flowers at top - leaves ovate lanceolate attenuate at both ends, internodes 1 inch or a little more - Petals bilobed with 2 small lateral teeth. I find in my herbarium 3 var. of Fauschneria, one from Heermann's collection might be a new species. - The flowers are large, of a brilliant scarlet, calix and all, but on a long leafy or bracteal spike. The leaves are exactly like small leaves of Knuthera bicolor. The new Oenothera, I call bilobata. another one which has puzzled me a good deal, is the rubicunda ^{beautiful! Corolla campylolobate}. The Ceanothus of which you had a sample labelled Oreganus is papillosus. In all those specimens of Castilleja venosa ^{I showed you} I find the ^{morphology} polyphylla well characterized and compared with Nuttall's. I will send my few umbelliferae, unknown to you, to Dr Torrey to see whether he can make them out. They are young and fruitless.

I began to doubt my new Osmorhiza, with its short hooked styles, I see that brevistylis has also recurved styles in the advanced seeds; but the leaves are certainly different. My specimens of Symphoricarpos racemosus have all trilobate leaves ^{at the base of the leaf} one large lobe and two smaller ones, but sometimes very elongated, I call it var. auriculata. Aster Chileensis is really radula, but with larger corymbs and larger flowers. Sericocarpus is really new, aff. tortifolius, it is neither Oreganus nor the following species; unless Mr Benth. has come before me, ^{I call it californicus.} send me, if you please your description of Leptogon Stillmannii. We had come to the same conclusion as Dr Hilgard and myself about my Dichroa, it is really a Monolopia; but, my dear sir, I could not make it a variety of Benth. Halenifolia, it has more likeness to M. minor, judging from the description. Have you ^{a specimen of} this and could you compare them? I have made, at all events, a new sp. of it; I call it lobata. Our plant is much branched from the root upwards and all the leaves are 5-7 lobed, without exception. The flowers are much larger, rays apparently entire but with two small teeth at top. Should the lower part of the leaf be called ^{margined} petiole or is the leaf ^{sessile} linear with linear lobes ^{at top}? I am very much puzzled with the trichostema - my pretty oval hairy leaves may be a var. of Benth's oblongifolia; but if that small sample I send you is lanceolatum, what is this which I have been accustomed to look upon as lanceolatum. its habit ^(mine) is so different from the other trichostema, that it might be one.

When you have described the new cornus, be good enough
to send me the description and permit me to publish it
with my plants. Dr Torrey has send me the names of some
of the monocotyledons - He says about the Veratrum that
"it certainly looks unlike the Viride but I have been at a loss
to find a difference in the flowers." (the difference I find is that
V. viride has oblong petals, rather narrow, whilst this has obovate
petals - in the dry state they are purple, but they may be different in
the green state, E.D.) He finds that the leaves are decidedly narrower
than the eastern plant and he adds "The fragment you sent me
some time ago, belonged, I suspected, to V. Eicholtzii, Gray - Pray see
if it is so - if new I will call it, of course, Californicum."

The new Asclepias is Acerates cordifolia, Benth, M. B. 329.
C'est vexant! I rejoiced so much to name it. He is puzzled
with my poor little Asagraga - I regret to have made a mistake in
it for Asagraga
telling this little flower is so pretty, you might have adorn with it
a fine bouquet for Mr G. Please to refer to Bot. Rey. Vol. 26?
and look at the Asagraga of Lindley, figured there, if it has not
much affinity with my plant, the same rotate ^{corolla} ~~petal~~, only
the spike is conical, whilst here, it is cylindrical.

I am much obliged to you for ordering M. Hartw. form
I would give now ten Dollars to have it. Excuse my bad
English ^{and corrections} and believe me, my dear Sir, your very much obliged
friend. My respects to Mr Gray and fare you well
The Collector's name is Henry Watson of N. Harmony! E. Durand

Prof. Asa Gray, Cambridge.

My Dear Sir,

Decidedly my poor eyes are not calculated for botanical investigations, nor for much reading and writing. In punishment of having overworked them, I have been confined, for four whole days, in a dark room and am yet unable to work.

With many thanks I return you your inst. description of *Leptogyne* and would have joined to it one of my two small specimens of *Polygala* had I not sent it to Dr. Torrey, with my doubted umbelliferae and all my endogenous California plants. I had prepared it for you; but my package for Dr. T. being ready before my ocular affection and next day not being able to see I placed it in the package with request to compare it with *Beuthania cuculata*. In many respects it answers his description in others ^{it does not} ~~and especially~~ the very manifest mucro which crowns the cuculus, or rather galea, cannot have escaped the observation of Mr. B. and no mention whatever is made of it. Notwithstanding the paucity of flowers in my spec. I send you one. Your *trichostema* leaves arrived all broken in small fragments. Still, I could distinguish the smell of the small branch I sent you, which is my *lanceolata*. It is astonishing that no mention be made of this very remarkable odor by B. in his description, being peculiar to this single species of the genus *trichostema*. As to the other small specimen I gave you, it might be a variety

of one of the eastern species - It cannot be the *oblongifolia*, the flowers not being in verticillasters or cymes. My pretty little ovate leaves species puzzles me still, although I am inclined to your opinion that it is a peculiar form of the *oblongifolia*. The small heads of Compositae mixed with the other belong, I think to the plant which you labelled *Harpocarpus nudiflora*.

After a careful examination the one flowered *Halimolobos* has nothing to do, I think, with the varieties of *multiflora*. I have other specimens, 5 or 6, from Calaveras, *Peckmanni*? exactly the same. The ray flowers are abortive and of course unguiculate, they are orange - and those of the disk purple. The stem, leaves and especially the short petiole are sparingly covered with ascendent white conical hair, &c. They are all one flowered with leaves opposite in some specimens, alternate in others, but very remote.

This, my dear Sir, is as much as I can do without straining my eyes, Farewell and believe me your grateful friend

E. Durand

My respects to your Lady.

Phil. March 3^d 1855

Phil. April 22 1855

Prof. Asa Gray, Cambridge.

My Dear Sir,

I have at last finished my manuscript of Planta Pratteniana, which I intend presenting tomorrow to the Academy of Nat. Sciences. It contains 11 n.s. of Torr. & Gr. 14 of Benth. and 12 of mine, besides several varieties and a Dryopteris unknown to this part and may be new. I regret exceedingly to apprise you of the insanity of my young friend Dr. Holgar who is now in the Lunatic Asylum, upset with spiritual hallucinations. I hope he will recover, as he is now perfectly sensible of his state, promises to expell all spiritual ideas and begins to read and occupy his mind in quiet studies. I have then been deprived of his assistance and of much esteemed and talented friend.

When you read my paper, you will see that I am at variance with you respecting the Dodecatheon. I have made a new species of Prattenia & Peckmann small plants specimens and thrown all the other forms into varieties of D. meadia, although much inclined to make a separate species of Nuttall's Oregon and California specimens the same as frigidum of Cham. Which is a much smaller

plant, with many more leaves at base than our D. meadia or Alp. integrifolium. I have established my diagnosis on the filaments of the Stamens which, in meadia, are generally free and inserted on the throat of the corolla, without forming a ring or tube. While in Pratten's plant, which is partly D. integrifolium of D.C., the tube formed by the filaments is very prominent, nearly as long as that of the anthers and totally violet, instead of the 2 spots that mark the base of the filaments in meadia. I believe it is as distinct a species as can be made. As to the other forms I have made them varieties of D. meadia, which I divided thus:

D. meadia, Linn. a. Our eastern plant

b. Mich. D. integrifolium

γ. Nutt. integrifol. Cham. frigidum

D. ellipticum, Nutt. D. integrifolium, partim, D.C.

as to dentatum of Hook, I do not know it, but I believe it also a form of meadia, his filaments not being united into a tube or ring. In sciences, we must ^{express} our conviction.

I have just before me my letter to Dr. Torrey whom I expect every day on a visit. As I have the same thing to say to you, I will just copy what I say about myself and ask you frankly the same advice:

"Deprived of a good sight and unable to use strong glasses without suffering much, yet I have an irresistible love for our science and long for the opportunity of maddening myself

useful, if I can do so. Tell me frankly, my dear sir, when you have read my next paper, whether I have the ability to satisfy experienced botanists; if my descriptions are secundum scientiam; my language - good enough, &c. &c. - or if it is better for me to stop here, rather than to become a laughing-stock at 61 years of age. Thirty nine years ago, when I arrived in this country, I had more theory in the science than I have at present; I was fresh from the benches and not rusty as I feel now, naturally, after a life of commercial activity, exclusively devoted to a primary object - not that of wealth, I scorn it; but of comfort to my family and to myself in my old age.

Now that I have attained this object, I feel my physical and mental means much impaired. If you think, however, that I am still fit for any useful labor, such as a monograph of some family, I will undertake it, subject to your revision and with your assistance and that of our friend Prof. Gray. Otherwise, my dear sir, I will confine my attention to the completion of the N. Am. herb. which I am now arranging for the Acad. of N. Sciences and will devote myself to other studies, none can judge himself, he must be judged by others and I assure you that I will feel under great obligation to you, to be stopped short by a friendly advice, rather than have the mortification of being laughed at for my temerity in undertaking a task that I am unable to perform. - My respects to your lady and believe me, my dear sir, gratefully yours E. Durand

Prof. Asa Gray, Cambridge,

My dear Sir,

I forward you by express my publication of Plantæ Præteritaneæ, soliciting, at the same time, the favor of a few words of your opinion respecting this rash production. I doubt that it will meet your approbation and I regret it exceedingly, as it will stop me short! Now that it is in print, I feel that my ability has not been equal to my zeal, and I should have done better to keep it a few weeks longer in my hand, to read it over attentively. Then, the defects I now see in it would have been corrected.

The leisure time I have at my command could not be more agreeably employed than in caring my dear hobby and making myself useful to fellow Botanists, were I able to do it. Under the impression that I could do something payable, I had planned a Monograph of the N. A. Endogens, from Araceæ to Ryridaceæ, if you and Dr. Torrey had consented to assist me with your experience and, especially, with the revision and correction of my manuscript. Under this idea, I had

imported Kunth; But I feel, now, my incapableness, and the utmost vexation at finding, at pages 101 & 103, two great errors of the printer, which had escaped my attention, when correcting the proofs. Now how many more remain? I tremble.

Inside of the pamphlet, you will find fragments of a plant collected by Dr Woodhouse in New-Mexico, which, I think, has not been described. It seems to belong to tribe Sanguisorbeae of the Rosaceae family. I took it at first for an Horkelia, ^{and it may be one with abortive ovaries.} but it has only a single achendum. It may, originally, have had several ovaries, all abortive but one; but having only one specimen and no microscope, I have not examined it fully.

The stem is about one foot high, divaricately and dichotomously branched at top, with 4-5 appressed pinnate ^{leaves} leaves below the furcation and small 3-paired ^{leaves} on the branches. Radical leaves in thick tufts, 5-7" long, by less than half an inch wide, lance-linear in their outline. Petioles 30-40, alternate, 3 digitate at the apex and somewhat truncate at base. Flowers not numerous, all pedunculate, the solitary ones, in the dichotomies, with longer peduncles and all the peduncles with an entire or dentate bract. Calyx as in Horkelia. - I have not seen the petals - stamens short - 2 stigmas? and

a single smooth, ovate-reniform achendum, containing a single seed? It is a singular plant with the leaves of some asplenium. I send you likewise 3 specimens of Lemnaea ^{Lemnaea} collected for you by Major Leconte who handed them to me just now. They are the Acuminata, nitida & axillaris.

I am, every day, engaged for 4 or 5 hours with the North American herbarium I am preparing for the Academy - I have finished the Lorentzaceae and draw freely from my own herbarium. I assure you it will be a splendid work, ~~as~~ much more complete than I had any expectation - Scarcely anything wanting except the Arctic plants of which, however, there is a good number from Capt. Parry's expedition and from Labrador. If Dr Kane returns, no doubt that he will enrich us considerably. Nuttall's original specimens are almost all there, but, bless me! how fecund is N. in fabricating new species! One half of them might easily be curtailed.

Let me have, if you please, your opinion of my views respecting Dodecatheon.

Begging your indulgence for a poor ignoramus, I remain, my dear Sir, Very respectfully yours

E. Durand

Phil. Penn 26th 1855.

Do you think my Plant. Pratt. would
interest Mr Bentham? If so Will you give me
his direction. It appears that you have not
been able to obtain for me his Pl. Barwegg; and

Phil. August 6th 1855.

Prof. Asa Gray, Cambridge.

My Dear Sir,

The hot weather has prevented me from answering sooner your favor of 13th ultimo. I can do nothing but manual work in the Dog days. I have been sorry and very ashamed at my errors, but rest assured, Dear Dr Gray, that I have not been vexed at your criticisms - - - I, vexed against you, my dear sir, whom I revere as the botanical luminary of this country. - as the most instructive, lenient and obliging friend. - Oh no! I thank you, on the contrary, for your frankness and I will, certainly, profit by it, if ever - but no! I shall never write again in latin.

Always, busy with my North Am. herbarium at the Academy, I enjoy a perfect happiness, because I see a result most satisfactory - It will be, I assure you, a splendid thing, as complete as I had any reason to expect. I began, on the first of July, the great family compositae. So far, I have reached the 4th div. of the Gaillardieae, that is the end of part 2^d of the second vol. of your flora.

It has not been the intricate and puzzling undertaking I apprehended and, with the exception of a few groups of species in the great genera Liatris, Eupatorium, Solidago, Aster, Helianthus, which I think could be considerably condensed, I found no great difficulties. From notes I have before me about the Asters, the section Capitula parva is the most intricate - tricoides, multiflorus, demissus, miser, trudescens and their numerous varieties, I found hopeless to separate them. I could find no lines of demarcation between

the largest and smallest forms of *Corymbosus* and *macrophyllus*,
between *cordifolius* and *sagittifolius* ^{in *Solidago*,} between *patula*, *arguta* and
Muhlenbergii; between *altissima* and *ulmifolia*; between *Can-*
densis, *serotina* and *gigantea*. All the section *maritima*
are forms of *sempervirens*. *Solidago Elliottii*, seems to me the real
elliptica of Ait. and Ell. Only the northern specimens are larger.
In *Helianthus*, I see no striking difference between *petiolaris* and *lento-*
cularis - in section *folia opposita* 3 new, with the exception of
Doronicoides, the rest is a puzzle.

When I begin the serious work of study, I contemplate some
remarks. I think I will be like you, for condensing! I am
astonished, especially, at the sight of Nuttall's species - except
in the size of specimens, which, generally, are very unsatisfactory,
I see no difference, except what exists between a plant grown
in a good or ⁱⁿ arid soil. They could easily be reduced one half,
although you have already reduced them considerably. Were I
only 20 years younger, I feel in me the stuff for making,
a good botanist and my mistakes, I have no doubt, should be
fewer than I find them on the labels of the Academy herbarium.
But, now, I am old and my eyes and memory fail me. I only
retain my physiognomical faculty which is remarkable. (Do
not laugh at my presumption!)

Dr. Steermann is now in Philadelphia. He is an indefatigable
naturalist, a good observer and possesses an excellent memory.
I showed him my *Helianthus simplex*, which he recollects perfect-
ly well. He says he always found it as my specimens, stem

simple, uniflor and remarkable by its purple disk. We compared
it with *H. multiflorus* which he also recollects to have seen.
They are quite different - The latter has smaller flowers, rays
and disk light yellow, the middle nerve of the ^{narrower} leaves very pro-
minent, whilst you can hardly distinguish it in my *H. simplex*.
I reach, my dear sir, that cultivation can no more change
the *H. simplex* into *H. multiflorus* than you can do the
reverse by sowing the multiflorus in a bad soil - You could
never produce an *Helianthus* with a simple stem and only
a flower, but it would not be my *simplex*.

I was very much puzzled last week with a specimen
of *Coreopsis*, bearing a single large flower at the summit of
naked and simple stems. The leaves appeared to be all radical,
but of two forms, some oval-spatulate on long petioles, and
petioles, the other narrow and elongated; stems scapiform,
perfectly naked, or with a single oval and sessile leaf a little
below the head. I thought I had a new species, but, on further
examination, I discovered that the narrow leaves belonged
to the stem and not to the root, but they were all at the very
base of the stems. I then, compared it with numerous
samples of *C. lanceolata* and found it to be one of the
extreme forms of this very variable species. It is, however,
a very remarkable specimen. In the Academy herbarium, all
the narrow leaves *Coreopsis* are are huddled together in a most
confused manner.

I send you a good specimen of the *Diodonta* (*Coreopsis*) *bident-*
-oides, Nutt.

I could have sent you a young specimen similar to that of Nuttall
which you have seen in the Academy Herbarium; but I prefer
large to small specimens. This plant is very common at Darby,
I had remarked the very long awns; but still I had placed it in my
herbarium as a remarkable variety of Ridea cornuta.

Now, my dear sir, I have done and in time
as I can hardly see now - so excuse me if I send you my
letter without reading it over to correct my errors or add
words that ^{may} have remained in my ink stand, as it happens
to me very frequently. My best respects to your lady
and believe, sincerely your friend, &c.

E. Durand

Prof. Asa Gray, Cambridge.

My Dear Sir,

Darkness was pressing so much upon me last evening that I missed saying to you all I intended respecting genera Coreopsis and Bidens. These twin brothers are not, I think, justly shared. It seems to me that all the Diodonta of Nuttall belong rather to genus Bidens than to Coreopsis. Although the upwardly and retroely bearded awns are ~~a~~ good characters, yet the long and short ^{awns,} or no awns at all, are another not less important character, the habit is also to be taken in consideration in the natural system. I will speak here only of Coreopsis dioscoidea and bidentata with their very long awns: They certainly ^{have} ~~resemble~~ more affinity with Bidens frondosa and comata than with the Coreopsis proper and I take them for dioscoid varieties of the two species, in spite of their upwardly bearded awns. C. aurea, trichostoma, aristata and involucrata have also more affinity with Bidens Chrysanthemosides and ceruina than with the coreopsis proper. I think these two genera require a new feature and the genus Diodonta of Nuttall might be a link between them. I recollect that Rafinesque in his herbarium had made a similar division, but I cannot find under what name,

And I had such ^{then} mistrust of the man, that I paid but little attention to his changes and notes accompanying ~~the~~ miserable specimens.

Pray, what can be your new genus Neurophyllum in Umbelliferae? Being found in the vicinity of Newbern, N.C., where the Archemora lernata grows also; and finding no specimen of it in the Academy herbarium, nor in mine, both so rich in specimens of that locality, I have some suspicion that Neurophyllum might be only a peculiar state of Archemora. Could you procure me a bit of a sample. I believe it is the only plant of Am. Umbelliferae that is wanting in my new herbarium, which, really, is a splendid thing.

I have now forgotten many remarks I have made in the course of my long and arduous labors, in performing the great task I have undertaken; but I will have to return to it more than once, when I intend to take notes and ask your opinion.

In attendant, pardon my importunity and believe me very respectfully yours

E. Durand

Thurs. August 8th 1855.

If I have been unfortunate enough to ^{lose} my Durandea, do you not think that Eldurandea would be quite euphonic?

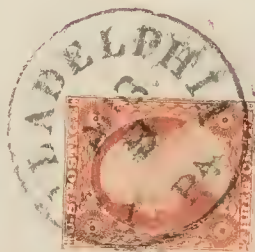
Elias Durand



Prof. A. A. Gray

Cambridge

Manuscripts



"Versale diu quid ferre recusant,
quid valeant humeri."

Prof. Asa Gray, Cambridge.

My Dear Sir,

Had I given full consideration to the above admonition of Horace, I would not have received the stripes that have fallen on my poor back. Notwithstanding the smart, were I still young, far from regretting I would enjoy them fully, for I feel that I could profit by them considerably, and I would have the ambition to do more and better for our dear Science. Before sitting down to my first diagnosis and writing inco modo, if I had studied, for half an hour, such models as De Candolle, Bentham and yourself, in order to give my first phraseology the regular and approved form, the succeeding part would have been in the same strain. Neglecting this important point, my work has been a failure from beginning to end.

I thank you warmly, my dear sir, for your frank criticisms and for all the attention, you have showed me in every instance. I regret that you had not time enough to discover other errors that you may have feared in the hurry. I have given up the idea of writing Monographs, it is too heavy for my shoulders! I will stop here — except if any other sets of far-western plants were again presented to the Academy of Sciences. I own, my dear sir, that my local feeling would not suffer them to go any where else for description, how ever weak my shoulders, I would still trust to your assistance.

In the copy of Plantae Praterianae which I sent you, I had already corrected 3 errors. Next day, that abominable umbellatiformibus stared me in the face with its loathsome reality. I almost fainted with disgust and shame, but judge of my despair when, in your favor of 3^d instant, I saw the long string of errata — Oh! then, I swore I would never again cause the press to groan for me — the press, this treacherous engine, always ready to engrave on your own faults!

Now, in several instances, I have altered yours and Dr Torrey's phraseology, in more than I can say. As to Bentham's, it is less astonishing. My eyes, then, being very sore, I —

marked the paragraphs which I desired to ^{be} copied and entrusted my son with that work. Unacquainted with technical ~~terms~~ terms, and pressed by his own concerns, he performed his task rather loosely and, no doubt, committed some mistakes, but I had borrowed P. Hartw. for three days only and I would not keep it longer. For the word Douglasii, which I have repeatedly spelled with two S, I beg pardon to Mr. Douglas, but, my dear doctor, I think it is as much the fault of that gentleman ^{as} ~~than~~ my own. Why, in the name of Flora! does he write his name differently from all the Douglases I have known. In writing a word so familiar, we mind the sound more than the spelling.

The obnoxious Caulis, in the beginning of my description is all my own stupidity. Hilgard, the poor fellow! had nothing to do with my writing, except the description (in part) of Campanula prenanthoides, which is regular enough.

The word remine in Viola Beckwithii must have been also in the manuscript and, certainly it is not amiss, as the spur is hardly conspicuous.

Folius caulinaribus may not be as euphonical to American ears as folius caulinis, but I think both are equally good, though I confess that caulinus is more frequently used than caulinaris. From the latter, is our French word caulinaire derived, from caulinus is your English word cauline.

I regret the printer's change of succiformis ^{into} ~~for~~ sacciforme and my oversight. However, if I have not forgotten my syntax, since I left College 45 years ago, the adjectives of the third declension form their ablatives, indifferently, in o or in e. I believe also that taberosus is not ~~is~~ wrong; the verbs exero and exero carry with them their preposition.

My intermingling with specific diagnosis characters belonging essentially to the whole genus is a culpable neglect on my part. I know intuitively many genera of which I would be much embarrassed to give the diagnosis and I ought to have looked to it, before giving the specific character. I shall not forget that rule, if ever. . . . But no!

My Silene Californica is not that you saw in Pratten's collection, when you were

here. It has more affinity to Virginica than to rotundifolia and I believe it to be the same enumerated by Bentham as S. Virginica. I think I prove clearly that it differs from all the Silenes with which it may be compared. Its variety miniata will, no doubt, prove to be a distinct species.

Ceanothus prostratus, Benth. fruticularis, my son's error! I thought fruticularis was the diminutive of frutex and in this sense it would be a most happy epithet for this pruned shrub. umbellatiformibus, a shameful blunder! Translation my own, bad, bad! Arothera decumbens is very conspicuously emarginate-bilobed in perhaps too strong.

Now to my progeny! Quid dulcius hominum generi à natura datum est quam sui generis liberi?

I have wild specimens and also your own cultivated specimens of Helianthus multiflorus. I assure you, my dear doctor that neither is my Helianthus simplex. The rays, and disk ^{light} of the former are of a uniform yellow color, in mine the rays are deep yellow, almost orange and the disk purple! The Mexican name Ojo de gallo could not be properly applied to yours, which has no marked centre or prunella like mine.

In about ten specimens of Monolopia Heermannii, there is not one with entire radical leaves, or trifid cauline. All the leaves are 5-7-lobed and the flowers larger than M. bahiaefolia. Is the top of the ligulae bidentate as those of M. Heermannii? These differences are sufficient in my view to justify the formation of a new species. Whether a species or variety they are two different plants.

Campanula prenanthoides is partly Hilgard's description. This, the polygala and Viola lobata are the only specimens of Pratten's collection that he has seen. He was to help me in this latter work as he did in the former, but he felt sick and could not do it. I had much less trouble alone! He is now in Washington with his brother, his mind is well enough for the present, but his physical health is very bad and I fear he does not live long. Destivation (if I am not mistaken) means the state of floral teguments before their expansion. You would be astonished how, in that state, our

Lamproloma resembles *proanthus* or other of the *Chicoreae* tribe: thin, elongated, cylindrical buds, with unequal and spreading involucre tips. I think the name and comparison are very good. I have not seen Hooker's name mentioned by D. C. at *Dodecatheon integrifolium*. Bot. Mag. 3622, I could not procure.

Now, my dear Sir, permit me again to express my warm thanks for your assistance, good advice, and the readiness with which you have always answered my letters and inquiries. In my little work, I have laboured under great disadvantages - very few books, no Latin grammar, not even a good ^{Latin} Dictionary. Except my Decandolle and our American publications, I had nothing. The Academy library, so rich in other branches of scientific work, is exceedingly poor in botanical works. I had no botanist ^{here} to help me, even in correcting the proofs. Under the present circumstances, and bad as my paper is, I would be ashamed to send copies to Messrs. Hooker, Bentham and Martell; they would not have for me the same indulgence you have. I am even afraid of Carey and when I receive a letter from him, I will shake, I am sure. I do not think I shall ever have another itching for writing, except in the case above cited.

I am going now to confine myself to complete the north am. herbarium of the Academy of Sciences and, when it is finished, then I will study it over with great care. I have arrived at the Aster: - They will take me the whole month - without opening the general herbarium and my own, I have found 95 species!

I have received your pamphlet respecting the Smithsonian institute, I will read it as soon as my eyes are rested a little; they are very weak and much inflamed. I have also received Bentham - If I have to pay, I will do it with pleasure and reimburse your postage advances.

Beyg your indulgence for having so much imposed on your precious time, forgive me and believe me ever your much obliged and devoted friend -

My best respects to your lady, if she recollects me at all.

C. Durand

I will not now trouble you so much as I have done of late.

Prof. A. Gray, Cambridge.

Dear Sir,

Your souvenir of 5th instant came to hand when our friend James was showing to me the strange nuts and leaves which his H. Carolina correspondent had sent to him. I had, already, seen a single nut from the same source, which had been a puzzle to me and had induced me to urge our friend to write for others and such parts of the shrub that might be obtained green or dry.

It has no resemblance with anything I have seen yet of American vegetables. Its affinities seem to be with ^{I at first thought} Hypocastanea or capulifera; but now that I have seen the leaves, I cannot connect it with any family except the latter from which it still differs considerably.

Should it belong to a forcing family or is it the head of a new one --- it is what the next spring will answer us? Major Leconte thinks it is the same nut that Bartram found in the forests of Florida, and mentioned in his travels as having a very oleaginous kernel. I am very impatient to know your opinion about it.

Do what you think proper ^{with} of Pratten's phlox. I had occasion two or three months ago to compare it with the various forms of P. divaricata which I had under examination and I found the characters which distinguished it as a variety, so constant, that I was very near coming to the same conclusion you have adopted, had

it not been for your authority. However, it has a great affinity with our P. divaricata. I found the same phlox from Texas and Sta Fe - so the name occidentalis will suit better than californica which may be already taken.

Do you recollect our little Cerastodinium mimuloides, of which we made our Mimulus exilis? I have found it among Nuttall's plants labelled Mimuloides pilosa. It is the Herpertia pilosa of Benthams (see Prodr. Herpertia, sec. Mimuloides.) I still think it is a new genus and would adopt Nuttall's name in preference. The description of Benthams is rather loose, I think ours is much better.

In my great labor at the Academy, I have reached Solanaceae. I am more and more pleased with my work - It will be a fine herbarium, I assure you, and worth consulting before you finish your general N. Am. flora. It contains many new things, and were you to accept all the new names of Nuttall and Leconte, you would enrich your vegetable army of at least one hundred new plants. ~~It~~ ^{and} easily find the affinities and true places of Leconte's plants, but Nuttall's specimens were generally so poor and incomplete that I can do nothing with them.

I send you enclosed, a grass which has been shown to me for information. It is that of which paper is now made in France. They call it there Sparta, or hair grass. Should it be the

Spartina cyrensioides? Imperfect as the specimen is, try to find out what it is, as it might become an object of commerce or of paper-making in this country. The inquiry is does this grass grow in N. America and at what price could it be obtained by the ton? I know nothing about grasses.

I am now occupied in piloting a French gentleman of the name of Carlier, who brought you a letter of introduction of a M^{lle} Trembecka, a Polish lady intimate in Mr Webb's family. This lady is a most intimate friend of a family in this city, which I consider as my own family.

I hope, my Dear Sir, that your trip to Europe has contributed to relieve you of your heavy task of student and you feel refreshed and quite well.

With my best wishes for all that belongs to you
I remain affectionately yours

E. Durand

Nov. 10th - 1855.

Monday, Nov. 14th 1855

Prof. Asa Gray, Cambridge, Ms

Dear Doctor,

Before receiving your favor of 12th instant, I was aware that the N. Carolina very extraordinary fruit belonged to the Pyrularia of Mich. Hamiltonia of Muhl. I had never seen a specimen of this shrub before and ^{with the idea} impressed that it had a small berry, similar to that of Shepherdia, I never thought of recurring to its description. I have since seen a specimen in Herb. Ac. Sc. collected by W. M. Nuttall in the high lands of N. Carolina, with a fruit about the size of a small hickory, perfectly round, the calyx adhering to every part of the endosperm, without projecting calycinal lobes, but not pyriform as was that sent to James, which looked exactly like a small fig, with a very pulpy calyx.

If this shrub grows at all in the Penn. Mountains, it must be very rare. I have never found it, nor have I seen it in any Pennsylvanian herbarium, Schwuitz, Wollé, Darlington, Collins, Griffith, &c. I wonder if M^r Porter ever found it?

I send you herewith a specimen of Nasturtium by Wenter collected perhaps 100 years ago by Mr Collins above ~~Hanover~~ Kinsington, on the site now occupied by Richmond, the terminus of the coal region R. Roads. I have seen it frequently, passing through, and, as an old acquaintance of the proletaire family,

I paid little regard to it. I do not not whether it might be found again in the same direction, extra urbem, as all that locality is now covered with houses. With it you will find also Arabis heterophylla of Nuttall, which looks very much like a starved A. laevigata, var. B.

Your remark why our Cerastodinium should not be a Herpeteris, has induced me to look at it again. Benthain having placed it by itself in section Mimuloides, I am perfectly satisfied, as I ought to be on such authority. Its habit seems so different from the other American Herpeteris, which are all glabrous and almost all succulent and turning black by desiccation, I thought it was something. Besides the divisions of the calyx are shorter, less foliaceous, oblique and not dehiscent towards the maturity of the seed, at which time the tube of the calyx is decidedly inflated; The throat of the corolla is not only ~~filose~~ spotted, but it is pilose also.

Benthain's peduncularis foliis brevioribus is wrong. It may be so with the lowest flowers, but not with the others which are from 1-2 inch. long & more. The top flowers are very much like those of the H. nigrescens and H. peduncularis on very long peduncles. Thus his expression a peduncularis calyce paulo longioribus is also wrong as the calyx is scarcely two lines long.

I send you a specimen of a Thlox, collected by Dr. Woodhouse in N. Mexico, not Texas (I made a mistake) which I consider as another form of occidentalis. The leaves are narrower, more glabrous and silvery as the other, ^{with a marginal border terminating in a kind of mucro.} stem and calyx viscidous and hairy. It might be made var. neo-mexicana, verging towards P. subulata.

Recollect, my dear Sir, that my observations are very desultory

and made going through my work, I am satisfied for the present, when I find a strange form or appearance, to lay it in a separate sheet of paper with its affinity ^{nearest} ^{with the view} ^{more} (to look at it seriously when my operation is at an end.

Your Himalayan plants will be welcome.

Believe me very sincerely yours, with my respectful salutations to your lady.

E. Durand

I now go see Rachel and spend a happy evening.

Phil. Dec. 4th 1855

Dear Dr. Gray.

I have mislaid your last letter and have no time now to seek for it. Thlopx occidentalis has a very great affinity with P. Siberica — and all the difference seems to me to reside in the narrow lanceolate leaves of the latter and the more oval leaves of the former. If the specimen I sent you (N. Mexico) has the long leaves of Thlopx Siberica it has also the silvery surface ^(and texture) of P. occidentalis, which the Siberica does not seem to have; and were it not for your opinion and authority, I would still look upon it as a var. of occidentalis, with narrow leaves. Where is the other difference?

I have been working hard at the Erigonae for three or four days. The Acad. herbarium has about sixty species and I never could succeed in following the arrangement of Benthon (Soc. Linn. Soc.) because I had no eyes for it. The genitalia pilosa & glabra, I could not discern at all. and as I wanted to put a certain order in their arrangement, founded on more striking characters, after many overturning, I adopted the within order, which I submit to you. After a few days rest, I might perhaps find in it many faults induced by different stages of floescence, but for the present I have enough.

I have beautiful specimens of Erigonum Jamesii, from Rio Benito N. Mexico. The flowers are of the most brilliant yellow, with reddish involucre; all my other specimens are of a dull color, some even appearing reddish as Fendler no. 746. — It is not Fendler no. 770 with its oval leaves another form of Jamesii — I have very little doubt that Nuttall's verticillatum is the same. His specimen is very young and the only thing you see of the floescence

is that the involucre are solitaria. The leaves are very elongated as are those of Wright no 617:

I take nos 620, 621, 622 of Ch. Wright to be E. sphaerocarpon of Dougl., is it so?

I do not recollect that I have anything particular to say about your last favor, except that I feel exceedingly grateful to you for your attention and the trouble I give you.

Believe me, Dear Doctor, your devoted friend. E. Durand

I regret that you have not kept the specimen of Nasturtium, I have plenty. And I will not disguise my mortification at receiving your post mark. I would not have done it, had I been in your place. Greater good you! Forgive my hurriedness.

Genus Eriogonum.

Involucra multiflora.

Inflorescentia capitulata. v. breviter umbellata.

Subtrutices.

- Eriogonum acule, Nutt.
andinum, Nutt.
Caespitosum, Nutt.
Ovalifolium, Nutt.
purpureum, Nutt.
{ Nuttallii, Gamb. Polypus, Nutt.
elongatum, Nutt.
latifolium, Sims.
fasciculatum, Benth.
rosmarinifolium, Nutt.
" var. foliosorum, Nutt.
angustifolium, Nutt.
geniculatum, Nutt.
parvifolium, Benth.
megacephalum, Nutt.

Inflorescentia umbellata

Herboe

- E. - - - densiflorum, Nutt. *
With more oval leaves { flavum, Nutt.
aureum, Nutt.
Crassifolium, Benth.
heracleoides, Nutt.?

* Probably umbellatum. Umbel less developed leaves more oval & obtuse.

- E. - - - compositum, Dougl.
gyrophyllum, Nutt.
Ellipticum, Nutt.
Prattenianum, Dur.

Inflorescentia 2.3 chotoma

Involucris solitariis

- E. - - - longifolium, Nutt.
tomentosum, Mich.
{ Verticillatum, Nutt.
Jamesii, Benth.
617, Ch. Wright & 766, Fendler.
770 Fendler.
Sphaerocarpon? Dougl.
pharvacoides, Torr.
alatum, Torr.

Involucris aggregatis

- E. - - - elatum, Dougl.
nudum, Dougl.
auriculatum, Nutt.
{ dichotomum, Dougl.
? - { album, Nutt.

Involucra pauciflora, solitaria

- inflorescentia corymbosa, v. umbellata
{ frutices
E. - - - { micranthum
perhaps the same { helianthoidifolium
luxiflorum

Herboe

E. - - - - brevicaulis, Nutt.

micranthum, Nutt.

campanulatum, Nutt.

effusum, Nutt.

Inflorescentia 2-3-chotoma.

E. - - - - { dichotomum, Nutt.
 \ album, Nutt.

annuum, Nutt.

multiflorum, Nees.

cornutum, Nutt.

effusum, Torr.

Inflorescentia secus ramos disposita.

E. - - - - vicinicum, Dougl.

niveum, Dougl.

strictum? Nees.

roseum, D. & Hily.

orthocladon, Torr.

racemosum, Nutt.

plumetella, D. & Hily.

Heermannii, D. & Hily.

Stipulata

E. - - - - angulosum, Nees.

— — —

E. inflatum Torr. ought to form a sect.
by itself I have no good specimens
it looks like a grass.

Prof. Asa Gray, Cambridge.

Carissime Doctor,

I answer to yours of 29th which I received about 2 hours ago, I say: That neither in herb. of Acad. N. Sc. nor in mine, which is still richer in Nuttallian specimens, his Aclepias or Agerates lanuginosa, is to be found. From his note in Genera amer., I see he had but one specimen, very imperfect, says he, and I add very problematical as many Nuttall's specimens are, I am sorry to say.

As M^r Nuttall represents his A. lanuginosa with terminal umbel and only partly lanuginous, it can be no other but a form of Agerates decumbens, with occasional slightly lanuginous leaves; or, as he says the leaves are ovate, it might also be a form of viridiflora with a single terminal umbel, as I have some specimens from Nicollet's N.W. expedition. I have ^{also} specimens of A. viridiflora with slightly lanuginous leaves.

My plantae Rameanae are nearly finished printing, I think I shall be able to send you copies towards the end of next week. I have taken much trouble this time and done, I hope, justice to my subject.

The enumeration of Dr Kane's plants will astonish you
when you see the result. (provided it does not astonish you
by its worthlessness.) It has raised the number of ^{Phanerogamous} ~~dicotyledonous~~
plants indigenous to Greenland from 80 to 146 and nearly
doubled the list of Richardson third or polar zone. What
is still more remarkable, the northern part of Greenland
from 72° to 80° has given more dicotyledonous plants
than the southern part, in about the same number of
landing places. &c. I shall not say any more now,
you will soon be able to judge for yourself and give
me the lash, if I deserve it, with your habitual frankness,
which I value above everything.

Believe me very cordially yours

E. Durand.

Phil. Jan. 8th 1856.

Much obliged to you, Dear Dr Gray, for your trouble, although regretting that you have not been able to do more; But I know, my dear Sir, how pressed you are by your labors and I can hardly conceive how you can stand such trials.

I had passed so rapidly over the plants I sent you that I do not wonder at my numerous mistakes. However many of them remained exceedingly doubtful to me and it was not long before I recollected Mercuria maritima and found out ^{that} my Sedum rhodiola and Saxifraga, belonged to it. The same for my Chionea hippida, which this northern Thymum mimics so well. These very strong and beautifully symmetrical veins, opened my eyes to it; but I was very much astonished to find a labiate plant so far north. My Chiranthus Pallasii? answers certainly to the description of your N. A. florea, Chiranthus or not. It is the only specimen in the collection! The Hellaria Purshii I had placed with S. longipes, var. Edwardsii, although it answered the description of the first just as well. I did so only because in the enumerations of Arctic plants no such species as Purshii was noticed. All the Cerastia of the collection, I had also placed in the same section as C. alpinum, as varieties of the latter.

Since I wrote to you, I have had occasion to consult Brown, Hooker & Richardson's enumerations of Arctic plants, which have been of great use to me; but I have not as yet seen Hooker's fl. Sept. Amer. - which I have no doubt, as you say, will be very serviceable to me.

Now, Dear Sir, I will not detain you any longer. The small bundle I sent you contains samples from the different fascicles Dr Kane brought home and many of them are unique. Therefore I will be obliged to you to return them, with additional notes if you can. But tell me how you should wish - more particularly as it is the desire of Dr Kane, you should be furnished with that.

Generally the specimens are very sparse. You know the difficulty Dr. K. had to save the few he brought with him.

Before returning them, oblige me again to give a glance to the Cruciferae. I believe the Draba alpina is there under all its forms, forming the doubtful species extracted from it, such as hirta, pauiflora, micropetala &c. What is the species I named maricella? My Draba alpina, var. maxima, is a very doubtful Draba. Look at the very divaricate branches of the Stegia! The Saxifraga, I am now pretty certain of. Except 2 unique species you have in your bundle a very low one with a single? flower rather large, which might be a Stellaria - and the small yellow one about which I remark that it ~~looked~~ looked like a miniature primula officinalis. Of the two pedicularis I think now that the lowest is the hirsuta, Hook, the other arctica.

The leaves I sent you with the valerian, were in the same sheet of paper. They were generally detached from the plant; but I think some were and they were radical. They are at the Academy in my very cold room. When the weather permits, I will go there and ascertain.

Very gratefully yours

E. Durand

My respects and compliments of the season to your Lady.

Prof. Asa Gray, Cambridge.

Dear Doctor Gray,

Before receiving your answer, I send you what I have done to repair my culpable negligence. You see I have well employed my time and have been able to find books, when I have learnt their names. On the many notes, lists and remarks I have made, I have worked the whole day in reforming my printed memoir - *Quantum Mutatum* !!! - Still I keep my position and pretensions about making Kane's collections valuable, and interesting. Please to examine and correct this new scribbling and tell me with your Bon Breton frankness (that I am) whether it will do. Do not expect from a poor brained fellow like me the acuteness and profound reasoning of a DeCandolle, a Richardson and an Asa Gray - If it is passable, it is all I want.

Grâce à Dieu! so far there is no great harm done. A few copies sent to different States, none abroad. Dr Kane has not cited in his book any part of the mistaken views of his botanist, and I dropt a note to Prof. Silliman informing him of my errors and begging not to be noticed for the present in his journal

A thousand pardons for the great trouble I give
you, but you have showed so much sympathy, so
much charity and interest to my poor self, that
I shall never forget the obligations I owe you.

I shall leave the first page as it is and expunge
all the rest from the 1st paragraph of page 180.—
for what I now send you — I will retain the paragraph
« This unexpected result " &c. But not his little companion
« Than will the popular " &c. My table I transform in
a simple enumeration of the plants of Kane, with
2 columns, one for the plants of the Southern section
of Greenland, the other for the Northern —

Adieu! adieu! my dear Doctor Gray — remember
me very respectfully to your lady and believe me —
Very sincerely your much obliged friend —

E. Durand


Phil. June 12th 1856

Prof. Asa Gray, Cambridge.

My dear Sir,

I sent you yesterday, by mail, a copy of my enumeration of Dr. Kane's Greenland plants. I have bestowed on it all ~~the~~ ^{altogether} the care, attention and scrupulous study in my power, and I would regret exceedingly that it would prove unworthy of your approbation. You will not be surprised that I was myself at the result obtained, and to see the calculations of Mef.^r Richardson, DeCandolle & others so far overpast. Let me know frankly, at all events, what you think of my plantae Kaneanae, as there is no living Botanist for whose opinion I have more deference and respect than I have for yours. This is no flattery; but my candid opinion!

I am expecting with eagerness the appearance of the new edition of your manual, to see the alterations you may have introduced. In arranging the Splendid herbarium *BoREALI-AMERICANUM* of the Academy, I feel more and more the absolute necessity of a new and complete edition of your flora of N. Am. it is so unhandy to have to resort to the numerous publications that have been made since! I would not have you to recommence this work, without consulting our great Depository of Nuttall, Le Conte, Baldwin, Read and others who have contributed their mite to the completion

of this immense herbarium, to which I have transferred all my specimens from Nuttall, Spalding, Nicotlet, Lindheimer, Fendler, Wright, Hale, &c. You will certainly have occasion to examine, reunite and establish new species. I intend, next winter, to examine it carefully and prepare notes, which, I hope, will be of some use to you afterwards.

I am becoming very proud indeed of the great labor I have undertaken. It might have required a more able hand and head; but none could have bestowed on it more patience, more time nor more zeal than I have. Otherwise all these separate collections, some of them drowned in the vast abyss of the general herbarium, or laying *piè le niè* on the shelves of the botanical room, would have remained neglected, forgotten, spoiled, lost to science.

In expectation of a few words from you, I remain, my dear Sir, your most devoted friend

E. Durand

Phil. 18 June 1856

Prof. Asa Gray, Cambridge.

I cannot express to you, my dear friend, how grateful I feel for your last kind letter, and your sympathy in the awkward position in which I have placed myself and perhaps Dr Kane, if, in his narrative he has made allusion to my memoir - Help me out of this trouble I beseech you, with advice and some notes to fill up the chasm ^{which} with the complete disappearance of my table will leave.

It is less the want of books than the want of experience, or as you say the want of knowing where to look, that has placed me in this dilemma. I have, this morning, at your suggestion, consulted the article Greenland in the Edinburgh Cyclopaedia (The name of Griedle is not given) I have perused E. Meyer and a small work entitled "Outline of the geographical distribution of British plants" by H. C. Watson, and I have found as many new species to add as I had already included in my Flora Groenlandica. I have found also the very first number of my enumeration under the head of Ranunculus hederaceo proximus and R. hederaceus, L. and several others. I have the confidence, however, that my pedicularis Kanei is good.

It remains now too few additions to make to need a new table in lieu of the defective one. I shall strike it altogether and

express the difference existing between Sir Richardson's third or polar zone and the collections made by Dr. Kane from the 73° upward. In the column of Sir Richardson's tables, headed "North Greenland plants from 73° The English botanist reckons 40 dicotyledonous and 9 monocotyledonous plants: Dr. Kane brought from that same hyperborean region 55 dicotyledonous and 12 monocotyledonous species, exclusive of varieties - That is 3/8th more than Sir Rich. and much more than was expected by the Dr. himself and Alph. DeCandolle. As to those plants which have been found for the first time in these high latitudes, I will leave the quotation as really, if found before in Greenland it was in the southern part.

In this respect, it seems to me that I shall have no need of changing anything before paragraph 2^d of page 181 - But how shall I fill the chasm - - the four pages that will remain blank. This is the embarrassing question and my mind is so overcast that I have not seen yet any clue to it - I am perfectly inert, astounded, unable to find my way in the dark. Oblige me, my dear Dr. Gray to come to my assistance with suggestions and even something from your pen, as a loan, as a gift, in your own in the shape of correspondence.

Not seeing in your am. flora any *Potentilla frigida*, except Greville's, which is given as a synonym of *P. nivea*, B. and having numerous well marked specimens of that variety - I was satisfied that the specimen you had marked *frigida* was not it; but answered the description of var. *γ*, the *hirsuta* of Vahl, and I placed it there with my own description to give others the chance of correcting me, if mistaken - Indeed, my dear sir, here is an instance in which I cannot but consider each of these varieties as as many distinct plants, whether called species or varieties. They can never be mistaken for each other; they can never reproduce each other; their annual forms will never mingle with or pass into each other. In such a case I should rather call them species than varieties although their petals are obcordate.

My dear Dr. Gray, your last paragraph overwelled me with grief and uneasiness about your health. - To say if I live! You really work too hard, you expose yourself to be stopped short by fatigue in your glorious career. Have always in sight the Italian proverb "qui va piano, va sano, &c." Take your time and you will do more in the 30 years to come than you could do in five years hard labor. You are too useful to your family, to your friends and to the world at large to be permitted thus to break down, continually, under too heavy load.

I hope, my dear sir, I will not frighten you by my advice.

But really you have spoken in words, if I live! that seem to forbode that you feel you are working too much and your health suffers by it. Recollect that the world is indebted to you and you owe him nothing more and your friend and admirers would not have anything from, were it at the expense of your health.

You are such a good hand at correcting that at a glance you may see the faults - I know two already, one of which will disappear with the latter it is plantaginaceae for plumbaginaceae, and Melanthaceae for Melanthaceae - a page of errors placed at the head of the enumeration, as you have done in your N. A. flora would fill up two pages - if unfortunately, but by chance there were enough.

It is late, I have not time to read over my letter. Excuse my hurry and thank how anxiously I shall wait for your answer. Should it fall on a Sunday, no page - of the bible, I believe, forbids to give assistance when so much needed.

Farewell, my dear Sir, believe me sincerely and gratefully your most obliged friend

E. Durand

I send a copy of my enumeration to Prof. Agassiz please inform him of my error.

Prof. Asa Gray, Cambridge.

My Dear Sir,

Having been appointed by the Philosophical Society to deliver an obituary notice of the late Francis Andrie Michaux; notice which, according to the laws of the Society, is limited to a certain number of pages, I found materials enough to write a full historical notice of him, if I can procure ^{further} information on his last years. I understand you have seen him frequently in Paris and are perhaps acquainted with his family relations; If so, can you tell me anything about his widow and whether he had any children. I saw him in Paris in 1824 & 25; He then, had rooms on a small market place, somewhat about the Batte St^e Genevieve (name forgotten) I breakfasted several times with him, but I never saw any family about him, but an old servant. He spoke about, and invited me to his country seat near Pontoise but it was in the winter and I had no opportunity to go there - I only went with him, on an awful rainy day, in his little cabriolet, to see somewhere the other side of St-Cloud, a nursery planted with oaks, hickory, elms &c. The seeds of which I had sent him in abundance

five years previous. As I had very little curiosity about such matters, at the time, I made no inquiries about his position. I think he had a situation in the administration forestiere, but now in the Garden of Plants; He lived modestly and far from affluence as it appeared to me. However Michaux's habits were altogether this way, and he might have been well off, and still live in this style of modesty and simplicity. What kind of a country place was his Montreal property near Pointe-aux-Peres, was it a maison de plaisance, or ^{simply} ~~was it~~ a nursery of trees which he cultivated as a renown? Anything you can tell me with regard to himself and his matters will be thankfully received - Your memory is so good and your pen so fast, that in a quarter of an hour, you can give me much information. If you have none otherwise, you could tell me to whom I could address myself in Paris. I have heard frequently of a M^{lle} Villemorin as very intimate with him - What is her address? You know he has left a will in favor of the Phil. Society, with the view to promote Science, but the will has not been opened as yet, for want of knowledge in the French law, and we do not know what it contains - The donation is not, however, to take place but after the death of his wife.

I am a great bore with you, my dear Doctor, but you will forgive my importunity and continue, I hope, to believe me sincerely
your most devoted servant & friend

E. Durand

Phil. Oct. 4th 1856.)

My respects to Dr. Engelmann, I am ready for him to show him all we have here.

Prof. Asa Gray, Cambridge.

Forgive my importunity, I beseech you, Dear Doctor, and do this again for me, in spite of all your numerous occupations. Thanks to Michaux's last letter, which I have found in the Archives of the Philosophical Society, I have been able, I believe, fully if not rightly, to wind up my task, without waiting for the answer of M^{re} De Vilmosin, to whom I have actually written for further information.

Will you oblige me, my Dear Sir, to peruse this scribbling, and tell me frankly (as I know you will) whether it is in a fit condition to read before the Philosophical Society. Will you also correct, amend and unamend, if I am to be reduced, or if anything more to say (than I have said)? Will you, in particular, pay some attention to the character physical and mental which I give to M^r Michaux? When I think of him and see him in my mind, his image soon vanishes, and who sits before me invariably? Lesueur, another Frenchman whom I have known much better than Michaux, and who had with ^{the latter} ~~him~~ a great resemblance of manners. Anything you may suggest, please write it on a separate piece of paper, with proper indications^{ve} marks, and return the ~~best~~

manuscript to me in time to have it for Friday 7th November
meeting day of the Society, if it deserves reading?

I have communicated it to Mr. Frego, our secretary,
who has been good enough to correct my genuine broken
English.

I have not seen yet Dr. Payson. I suspect you
have kept him so long in Cambridge that he has had no
time to spare ^{for} us.

Very respectfully yours

E. Durand

This. Oct. 31 1856

I have communicated my paper to Mr.
J. Lee who has known personally Mr. Michaux
in 1832 & 52. He has not seen Mr. W. with a glass
eye; but one eye blind - I am, however, pretty certain
that I saw him as I say.

Mr. Lee intends furnishing me with sundry
anecdotes about Michaux's acquaintance with Feltma
and his great ~~amuse~~ enthusiasm for American and
American people & institutions.

Philadelphia Nov. 15th 1856

Prof. Asa Gray, Cambridge

My dear sir, I thank you for the trouble you took in reading my notice on Michaux, but your marginal remark "I doubt the eye glass" is still perplexing me. When I saw M. in 1824, I perceived something peculiar in his gaze, which struck me forcibly, but to which I soon became accustomed. He had certainly two eyes in his head, either true or false.

Had I not heard since that he was blind with one eye and wore a glass eye (Leconte, &c) I would never have suspected it. Leconte saw him when he came last to this country and also in 1830 and says he had a glass eye. Mr Lea saw him both in 1842 & 54 and says he was missing his left eye. I had occasion, this morning, to see an admirable likeness of Michaux, such as I saw him, painted in Paris by Rembrandt Peale in 1810 or 12 — with both eyes! I went immediately to see Peale for information and he tells me that he painted Michaux such as he sat before him, with both eyes and did not perceive anything particular about his eyes.

Now, my dear sir, I would not say anything in my notice that might be contradicted — so oblige me to enlighten me on this subject as you have had many occasions to

It is now contemplated in Philadelphia to republish a new edition of Michaux and Nuttall's Sylva, with a fine lithograph of Michaux for Rambr. Peal's portrait. My notice on Michaux has been asked from me as an addition. I have suggested notes to give at the bottom of the page the synonyms and adopted names, to which Michaux, unfortunately, has too frequently deviated. Any suggestions from you will be thankfully received.

See him in your visits to Paris. Was he, really, blind with the entire loss of one eye and that eye closed, or was his left eye simply deprived of sight and still remaining in his orb? open!

Michaux might have worn a glass eye when younger and given it up in old age, when he lost all pretensions to personal appearance. I have known a lady similarly afflicted, whose confidential agent I was (having known her in her youth in the state of blindness) and for whom I imported from Paris her false eyes. She wore a false eye for nearly 40 years and now she has given it up. The glass eye is a very troublesome apparatus; its application is most always attended with more or less irritation and sometimes, with considerable pain. I have seen her in such a state of suffering and dependency that she entertained thoughts of suicide. She would have given her whole fortune never to have resorted to the false eye, but had not courage enough to brave the sneer of her acquaintances by exhibiting her infirmity. However, having become old and wrinkled, she has at last abandoned it and very happy is she now.

This might have been the case with Michaux.

Begging anew your indulgence, I remain your
devoted friend E. Durand

Prof. A. Gray, Cambridge.

Dear Sir,

From the fact that congeneric and conspecific vegetables are found in sections of the globe widely remote from each other, it is not, absolutely to be inferred that there has been an interchange of species between these two sections. Migration of plants from one locality to another has, I think, been much exaggerated: When it occurs, it is mainly, if not altogether, by the three following processes: 1st, by the dispersion of seeds through the agency of winds or currents of water; 2^d, by the migration of animals, birds especially, through their excrements; 3^d, by the ^{& commercial} social intercourse of the people of different countries. Identity of soil, of local exposure, of climate are, however, absolute conditions of permanent naturalization.

When countries, as Japan and the Eastern States of North America, happen to possess a vegetation almost identical in congeneric and specific individuals, notwithstanding an interruption of half the circumference of the globe, it seems more warrantable, and not less scientific, to suppose that the Creator has implanted, simultaneously, in these antipodal regions, the germs of plants requiring the same conditions of vitality and reproduction, — than to ascribe this identity of vegetation to any interchange between sections so widely dissimilar. It is not likely that migration of seeds could have taken place at a distance of so many thousand miles by any of the processes above mentioned, without leaving somewhere, under the same parallel a link of continuation more or less traceable.

If the chain were broken only over the two thousand miles of arid

lands which constitute the great Mongolian Desert, to reappear again in Afghanistan, Persia and Asia Minor, nearly under the same parallel, with fertile soils and nearly a similar climate, the migration hypothesis might, perhaps, be admitted; but the great leap from one hemisphere to the other, not only over a whole continent, but over the Mediterranean and the Atlantic Seas, without leaving, in the intervening fertile spots, any trace of its passage, cannot, in my opinion, be seriously entertained; Especially, when half the distance over an uninterrupted ocean, separating Eastern Asia from Western America, has not afforded such a striking resemblance in the vegetation of these two sections as in the former ones.

For the same reasons, if the Arctic flora is identical, in many respects with that of the Alpine regions and, moreover, with that of the high lands of Terra del Fuoco, the nearest productive land to the Southern Pole, it is owing, most probably to me, to a multiplicity of original types, than to any interchange with each other, through the lapse of ages. It has not been more difficult to the All Powerful to create one original local type than to create thousands. The word of the Genesis "Germinet terra herbam viventem et facientem semen" is no more applicable to the hypothesis of a single local origin than to the supposition of double or multiple original types.

The homogeneity of the Arctic and Sub-Arctic floras, at the present time, has nothing to do ^{I think,} with the present question; the two floras being

being almost every where continuous and the species only disappearing, gradually, as the Pole is approached.

I will repeat again: that, in my opinion, the supposed ^{spontaneous} migration of plants has been somewhat exaggerated. I am strongly inclined to believe that from the time the earth became habitable, the geographical distribution of plants such as we have it now, has been very nearly the same: Some species may have disappeared, or been confined to narrower limits; Others, may have made their appearance spontaneously, by some of the processes of migration, above mentioned, or otherwise, but upon the whole, the ^{original} general local vegetation cannot have been materially modified. Had there been but one local original type, destined to spread itself over tracts fitted for its peculiar vegetative endowments, its migration would, naturally, have begun on the nearest lands; and when we have under our own eyes such dissimilarity as that which exists between the floras of Oregon and California, and that of our Eastern States, with a continuity of lands between the two regions, we may well doubt that the remarkable identity of the Japanese and East American floras, be owing to an interchange.

Besides, the plants that seem to be best calculated for migration, are, it seems to me, those that migrate the least. Most of the Compositae, for instance, that are provided with plumose seeds and which we see, during a summer day, flying in all directions before the winds, will seldom vegetate out of their local limits. It is remarkable how

little interchange has taken place in that family between the Atlantic and Pacific regions, or even between Europe and America, comparatively to other families, and to the great number of species which the order compositae contains.

Nossilago furfara } belong rather to the subarctic region than to Europe.
Solidago virgo-aurea }

Inula helenium can scarcely be said to be naturalized

Xanthium, *maritima*, *Achillea*, *leucanthemum*, *Tanacetum artemisia*, grow almost on every spot inhabited by man.

Senecio vulgaris, *crucis* and *carduus*, are not naturalized, although occasionally found. Whilst the *Erigeron canadense* is frequently found in Europe on the sea coasts, *Senecio vulgaris*, the plague of the European gardens is as yet a rarity in this country.

Lappula, *cichorium*, *leontodon*, *sonchus*, only near the abode of man, gardens &c.

Lapsana, very scarce, not naturalized yet

Taraxacum & *cirsium lanceolatum* quite so.

Scarcely more than 20 species of ^{European} compositae are found in the Eastern States, one half of which is deprived of fragrance. Where are the Western American *Corembiferae* that grow spontaneously in Eastern America?

Michaux's Tract.

April 19th 1895 - After herborizing on the high mts of the Carolines, started for the western territories.

20th Nelson's ferry. 21, on the high hills of Santee - 23^d, flat rock, crowd hanging rock creek and slept on the banks of Cane creek.

26th Started from Cane creek, passed Laurel's ford on the Catawba river. 27, stopped at Col. Hill's Iron works 32 miles from Cane creek.

28th, passed Armstrong's ford on the southern branch of the Catawba. 29, through Lincoln. 30th arrived at Morgantown. Started 2^d of May. 3^d visited Mount Linville and another very high hill. 6th Saw Round ^{and yellow} mountains.

10th came back to M^r Davenport's farm, visited the hills opposite Roundback and the blue ridges. 13 visited again yellow mountain. 14th - Crowd Doe river 27 miles; 15th passed through John'sborough - remained several days. 21st passed Bull's gap; 23 Mony creek; 24th - Macby's ferry. 25 arrived at Knoxville, residence of the Governor of the western territories, where I remained to the fourth of June.

June 5th Slept at West-point on Clinch river. 6th, crossed Clinch river; 7th on the Cumberland mts. 8 & 9th crossed the mts 27 miles. 10th arrived on the Cumberland river and went on 20 miles above. 11th, arrived at Bloodsick lick or station. travelled in all 120 miles through the wilderness. 16th arrived at Nashville, 197 miles from Knoxville.

22^d June, started from Nashville; passed Mansko's lick; 23, crossed Barren oaks. 24th crossed Big Barren river; 25th, Little Barren river and the green river. 26th passed by Roland's forks, head of salt river. 27th arrived at Danville, 117 from Nashville.

July 16th started from Danville. 17th passed through Beardstown. 18th arrived at Man's lick; 20th at Louisville. 24 returned to Man's lick and hence back to Louisville, where I remained to the 9th of August.

Aug- 10th arrived at Port Vincennes on the Wabash; 23^d started

for the Illinois.

August 30th, arrived at the village of Kaskaskia.

Sept. 5th Started for Prairie du Rocher 15 miles from K. 18th returned to Kaskaskia, where I remained for some time.

Oct. 2^d Started from K. on foot towards the confluence of the Mississippi & Ohio. 9th embarked along the Mississippi. 13th started from fort Maudslowi on the Cherokee territory, 6 miles from the mouth of Tennessee river. 16th encamped at the mouth of the Shawano or Cumberland river. 20th returned to fort Maudslowi.

Nov. 6 Started for the Illinois. 10th arrived at the prairie and 13th at Kaskaskia, 130 miles from fort Maudslowi.

Dec. 14 Started back for Cumberland; arrived at Cape Girardeau 15th. 16th at the confluence of the Ohio. 18th at fort Maudslowi. 19th at the mouth of the Tennessee; 20th at the Cumberland river. 23^d passed the Des Sables. After a long and perilous voyage, in the most inclement weather and in a small boat, arrived at Clarksville on the 10th of January. Started from C. on the 16th and arrived at Nashville on the 19th. —

Jan. 23^d Started from Nashville

24 arrived at Big Barron ferry — 26 started for Green river.

28 arrived at the plantation of Mr. Madison — 29 arrived at Green river

30 crossed the river, and 9 miles above Bacon creek. — 31st passed Higgins mill on Nolichucky river, crossed at Rolling ford and arrived at Bedford.

Febr. 4th passed through Sheppard's town and arrived at Louisville on the 2^d.

Febr. 7. Started from Louisville to return to Nashville where I arrived on the 15th.

Febr. 25 Started for the Carolinas.

March 1st arrived at fort Blount on Cumberland river.

3 Started from B. and arrived at the Cumberland Mts on the 4th. Arrived 6th, at West-point on river Clinch; and on the 8th at Knoxville.

March 15th Started from Knoxville; 16th, arrived at Iron Works; 17 at Bull's gap; 18 crossed Lick creek and stopped at Green court house. 19th arrived at Johnsborough; 22^d crossed the iron mts; 23^d arrived at camp Creek; 24th visited the high mts opposite Davenport's farm. 29th Left Mr. Davenport and arrived at Morgantown on the 31st.

April 1st Started from Morgantown; 2^d arrived at Lincoln; 3^d at Bennett Smith's, 12 miles from Lincoln; 4th passed Tuckasegee ford on river Catawba. 5th Slept at Waxsaw creek in South Carolina; 6th passed hanging rock and arrived 7th, at Camden. 8th passed through State Borough and slept at Manchester 9th. 10th crossed Manigault's ferry on the Santee river and arrived at Charleston on the 11th of April.



Sailed from Charleston, on the 13 August 1796, on board ship Ophir bound for Amsterdam.

Experienced a dreadful hurricane, on the 9 & 10th of October, on the coast of Holland, was wrecked near the village of Egmond where he lost part of his collection and remained, sick and drying what he had saved, until the 25 of November; passed through Amsterdam La Hain, Brest, Brunelles and arrived at Paris on the 23^d of December.

Dr. A. Gray,

My Dear Sir, I have done my task quite at ease. I hope my note will be sufficiently full for your purpose. You may find in the Dictionnaire encyclopedique de Botanique an interesting notice of Michaux and in the head Voyagers, vol. 8th page 737. I have been so busy that I have not been able to look upon many bundles of Rafinesque's herbarium, I send you the plants I have laid aside for you, by a friend whom I instruct to mark on the letter his address that you may send for the bundle. Keep the duplicates that may interest you and return the remainder when you have finished with them. You may think that I feel anxious to know what I may add to my collection and see authentic specimens, labelled by our great masters. Please to remember me to Dr. Torrey and believe me, both, your devoted servant and friend

A. I. D. } J. DeCandolle
No 7 Beaver St. } E. Durand

Mr. Schweinitz called at my house at about the time you were starting for N. Y. He received the 3rd you had left for him. — I think Michaux was not the ignorant man ~~when~~ he was represented to be. His notes are written in a hurry and in the old style; but they are well written and certainly he was a man of acute observation, and a most industrious pursuer of science.

in great hurry.

My friend Mr. Sales DeCandolle will leave the box I place to his care at his boarding house. Subject to your order.

Prof. A. Gray.

My Dear Sir,

Your favor dated 15th has reached me only this morning. I was beginning to fear less I had been impertinent in expressing my opinion about genus *Siphonochia*. I am rejoiced to see, on the contrary, that my letter has called your attention to these parts. In order further to assist you as well as I could, I have examined attentively, this morning, all the specimens in the French and N. American herbaria of the Academy, and send you herewith numerous bits of the different specimens I found there.

I believe you will find, with me, three distinct species now easily separated from the confused state in which they were mixed up in our herbaria.

N^o. 1. Your *Siphonochia* is easily distinguished by its white petals, with incurved divisions which give the corolla a truncated appearance.

N^o. 2. *Siphonochia glomerata* of Nuttall (not fastigiata as I have marked on the package) is, I have no doubt, the *Pae. Regelii* of Shudt. The flowers are comparatively large and numerously glomerate at the top of the cyms; the divisions

acuminate ^{and} but not mucronate, ~~as in~~ *Lipkanychia*.

1123. *Anychia Baldwinii* has axillary and terminal flowers, the latter few glomerate; smaller than in the preceding and with mucronulate divisions.

Here are three distinct plants, belonging now to 3 different genera, with habits so similar in every respect, that I really think they cannot be separated. I can, now, distinguish them at first sight with the greatest facility.

The only species of *Paronychia* that I have not seen is the sessiliflora of Nutt. which I suspect very much to be a form of *Jamesii*, if you have a bit to send me, I will be much obliged to you.

If I can be of any use to you, I'll be very happy. You might send me your genus *Paronychia* by our friend James, I will do my best — But microscopic observations are out of the ability of my poor eyes.

Thank you for your kind letter and believe me
Very warmly yours

E. Durand.

19 July 1858.

Now, my dear Mr Gray, as I have taken no copy of my last letter and notes to you, and my memory is very poor, I am at a loss to know which of Nos 11 & 13, which I now send you again, is what you consider a new form. For me, I have no more doubts on my mind about No 11 being the true Buddwinii. No 13 is what I now regard as a new form, and perhaps a new species. I have a short specimen which is high erect and very short-branched, from Buddwin. and other longer, apparently steepest, but very slender, almost thread like, with short branches and long internodes with little ? Andheimia which I remember perfectly at first sight, but no longer, when you look at the sepals which in one are dilated at top and awned, and are acute and without awns. In my two specimens of new form, one is short in panicle, the other are long. The latter might take place in the 2 species, Plectaea and Andheimia, and from the more inclined to believe them as belonging to the latter plant. The other characters of minutely pubescent and shorter awns are of no great weight. (Which of No 11 & 13 is Siphonanthus americana of Schultenow?)

Ever yours, my dear Sir, and much obliged for your consideration to
Lilia to a poor botanist like me, with eyes small to me the glass.

E. Greene

Phil. 28th July 58.

Dear Dr. Gray,

After receiving your last favor of 25th instant, I brought together all the specimens of Paronychia, &c. which were in the three herbaria I have at my disposal, and found that, with your P. seniciflora, I had all the north am. species that have been noticed + two new forms, one of which might prove a n. species. I enumerate them as follows:

1. Paronychia

1. Drummondii, T. & G.

2. setacea, T. & G. (scarcely distinguishable from the following)

3. Lindheimeri, ~~T. & G.~~ Engelm. (in my herb. was truly this, but Wright's specimen

is 26. Was setacea. The most striking character in P. Lindh.

in the prodigious length of its internodes, more than double

those of setacea, might prove, however, a diff. form only.

4. seniciflora, Nutt. (bad name, as several others are so)

5. Jamesii, T. & G. (marked P. laricina, Nutt. Mt. of Columbia River)

var. depressa, T. & G. P. depressa, Nutt. Very diff. aspect.

6. dichotoma, Nutt. (The Paronychia's &c. are almost all dichotomous)

7. argyrocoma, Nutt.

var. sericea. P. sericea, Nutt. Arkansas, of which I send you a specimen,)

8. hemarioides, Nutt. Herniaria americana, Collins

9. ramosissima, Nutt.

10. dichotoma, Mx

var. capillacea, Torr.

11. Baldwinii, T. & G. (so labelled by you in herb. &c. &c., where it was under the

name of Siphonochia americana, it is the same as DeCandol's

new species of Anychia, and A. hemarioides. remarkable

by its, generally, deciduous flowers, leaving behind the sea-

-dious bractlets in the form of a calyx. Sometimes, on a

whole plant, you can scarcely find a single article lacking

of Anychia and a true Anychia.

Paronychia Regelii, Thunb. marked by Nutt. 1st variety of

Herniaria americana. 2^d. Paronychia fastigiata, 3^d.

A smaller specimen, P. glomerata. The plant I sent you

first as new.

13

This is what I now consider as an undescribed, whether a

variety of the above, or a new species. I submit to you now

other specimens marked 4 & 13. It was in Collins' herb. received

from Dr. Baldwin, St. Mary, and labelled by Rafinesque

Anychia floridana. A small spec. of the same in herb.

&c. &c. is labelled by Nuttall P. glomerata, although

different from the former is 12. This is what I found

indeed in my herb. with Siphonochia. Flower smaller

than Regelii, but same form. Cluster smaller and looser

linear.

14. americana, T. & G. The true Herniaria americana of Nuttall. Purshella

-la, Thunb. (a good name, but goes I should prevail, under

you call it Paronychia siphonochia, which, however,

should be better applied to P. Regelii, which ^{has} form, a

long tubular, pointed, corolla.

Siphonochia

Anychia

Paronychia

2. Anychia

3. Siphonochia 12

Mr. Thaxter has spent four days with me, looking at our geminivores which have occupied all my time during last winter. I have had the satisfaction to ascertain that I had made but few mistakes in my arrangement. This has been well employed and he returned home with between 150 & 200 flowers which were abundant or unknown to him, merely Nuttall's. But poor Nuttall, who, I am sorry to learn, is in a dying condition, unlike myself a very bad grammarian, great many mistakes and not rarely the wrong plant under 2, 3 & sometimes 4 different names. These specimens will help Thaxter very much in the enumeration of the geminivores of this far west.

Yours very truly
E. B.

I have found this morning, in James Read's herbarium a plentiful harvest of Fraxinea indica in flower and in fruit. I began my package to add fruiting specimens. Mr. Read told me before his death that this plant was very common in the vicinity of Savannah, that it grew there in the very street and seemed to be indigenous. But it is rather a naturalized foreigner as myself. It was from ~~that~~ ^{his} a friend, resident of Savannah, that I received the specimen I sent you some twenty years ago.

Oct 22 '58

Prof. A. Gray, Cambridge.

Dear Dr. Gray,

Until you have supplied the botanical world with a general flora of North America, something is wanted to assist the botanist in the study of all the genera and species that have, thus far, been discovered on this vast continent, the descriptions of which are now scattered in sectional floras and numerous publications of difficult access, unless, particularly, pointed out in a proper guide.

The need of such guide, I have felt seriously on my part and, for some time, I have had in contemplation the framing of a general catalogue of all our plants, from the line of the River Gila on the Pacific side, and the Gulf of Mexico on the Atlantic - to the Arctic Sea.

As the framing of such a catalogue, which I, at first, intended for my own use, is to be attended with much mechanical labor and expense of time, I would wish now to make it useful to others, by bestowing upon it all my attention and concern, and having it published in a manner which would make it accessible to the student of N. American Botany at large. Before, however, undertaking this great task, and in order to accomplish it in a creditable manner, I would be sure of your approbation, of your advice and assistance in a certain limit; I would wish to be the mere labourer of your particular views, and have this catalogue to be a kind of skeleton of your future great work, A general Flora Boreali-Americana, as free as possible of faulty, or deviation from your adopted arrangement and nomenclature.

My plan would begin in the first place, to write it in latin, and ~~and~~ universal; To give 1st the generic name sanctioned by you, with seminal

Characteristic; 2^d a methodical enumeration by groups of the species, with their synonyms, followed by the most laconic specific character possible, in 2 or 3 words, taken either from the leaves, flower, or whatever other distinguishable trait; 3^d the general habitat, or geographical range; 4th the indication of the work, or publication, in which a full description, or figure, are to be found.

This labor, I could easily perform during the winter months, and I am assured that it will be published, all at once or in two parts, in the Journal of the Phil. Acad. of Nat. Sciences, or in that of the Philosophical Society. A certain number of extra-copies would be struck to be sold separately for the benefit of the Journal. If well performed, such a work would, undoubtedly, be of great assistance in the study of N. Am. Botany, until we have a general flora. In view of this project, my dear Dr. Gray, I come now to ask you, 1st: Whether you approve of my plan; 2^d: Whether you consent to assist me with your experience and advice, by answering my occasional inquiries, and providing me with the few books which I could not procure here; 3^d and last, Whether you could go so far in your indulgence towards me as to consent to revise and correct my manuscript, before giving it to the press. (This said, I feel it is too much and beg this favor only for the first families) — I can go on smoothly enough, I think, when on ^{the} right tract, as far as I am assisted by your flora of North America, which embraces all the preceding publications; but henceforth I could not proceed without the sequel which Dr. Torrey and yourself have prepared for publication, either in print or manuscript.

Please, my dear Sir, give me your frank and friendly opinion about my plan in a short and ready answer. The rest will be more easily answered, when I have submitted to you, as a specimen, the

first Natural Order of my intended Catalogue. Should they prove worthless, I will stop, of course, unless I can improve by your suggestion.

I shall not be able, however, to enter upon this labor before 4 or 5 weeks. For, as long as the weather permits me to work in my unheated Academic room, I will be occupied with the study of a large collection of plants, collected in the Canary Islands by a Mons. Despreaux — which collection I made out easily enough through the assistance of the beautiful work of Mesp^r Webb & Berthmot. This enormous herbarium of Despreaux has remained unnoticed on the shelves of the Academy for more than 20 years, after having been exposed to dampness. The plants are somewhat damaged, but good specimens may yet be found among them and if you want a set, it is at your service.

To close this long letter, my dear Sir, I will say that, if I don't possess a profound scientific knowledge, I feel, notwithstanding, that I have in me that intense devotion for a science which you have so much advanced by your labors and valuable publications, that might lead me to produce something useful to botanists, had I a guide to direct me. I am a hard working-man and, if I were at your elbow, I feel I could assist you greatly, as a mere mechanic, under the direction of a superior artisan, as you are. All my desire is to be useful in the limits of my abilities, and this feeling alone prompts me to undertake a desideratum, which no other hand seems disposed to perform, and is seriously wanted by the students of North American Botany, until we have a complete flora Bor.-Americana.

Very sincerely your friend & humble servant
E. Durand

Phil. Oct. 22^d 1858.

I have at my disposal all the publications on botany that have been
issued by the American press - I have Hooker's fl. Bor-americae.
Benth. P. l. Hartw. All the travels to the Arctic Sea.

I have not Hooker and Arnold - Drummond, Douglas, Payson
H. & C.

Please give me the titles of the best botanical works on
N. America that have been published abroad and may be
wanted in a bot. library - All that is pointed out to our liberal
and rich colleague Dr. Wilson, is immediately furnished by
him.

27-27 59

Prof. Asa Gray, Cambridge.

Mille pardons, mon cher Docteur, d'interrompre vos grandes occupations, pendant tout au plus une heure, pour examiner ces quelques plantes que le Colonel Kane m'a apportées des régions du Lac Salé. Elles ont été cueillies par les dames mormones, qui doivent être des anges, puisque leurs maris sont des Saints ? et sous ce rapport elles méritent quelque considération.

Comme le plus grand nombre de ces plantes ne se trouvaient point dans la collection du Major Stansbury, qui a été décrite par le Dr Torrey, j'ai pensé qu'elles seraient pour vous de quelque valeur, en ajoutant quelques données à celle que vous possédez déjà sur la végétation des rives du Lac Salé (qui se trouve peu différente de celle des autres parties non salées de l'Oregon.)

Veuillez corriger les erreurs et me donner les noms de celles que je n'ai pu reconnaître et garder pour vous les duplicates, ou même les spécimens uniques que vous pourriez désirer. Le reste, je le réserve pour l'herbier de l'Académie.

S'il y avait du nouveau parmi ces plantes mormones, je pourrais en faire l'objet d'une petite notice pour le Journal.

On les proceedings de l'Académie des sciences qui, malheureusement, sont
toujours bien pauvres en matière botanique. Veuillez noter pour
la prochaine édition de votre manuel, le Pinus pungens, Mich.
comme se trouvant dans la limite de votre Flore. Il vient d'être
découvert sur la chaîne des Alleghany, dans Alleghany County,
Pennsylvania. (No mistake!) Les cônes que j'ai vus sont plus
gros que ceux que j'ai vus auparavant et indiquent de grands
et vigoureux arbres.

J'ai commencé ma lettre en français sans m'en apercevoir, je crois fort inutile de la changer, persuadé que vous
êtes parfaitement au fait de ma langue mentale.

Mes compliments respectueux à votre dame et
croyez moi bien sincèrement votre dévoué serviteur et
ami E. Durand

Phil. 27 Février 1859

Apr 16 59

Prof. Asa Gray, Cambridge.

Cher Monsieur Gray.

Your debate with Prof. Agassiz on the two hypotheses of a single, and of a multiple original vegetable type has highly interested me. Although I have the greatest respect for your scientific opinions, yet, in this instance, I have not been able to side with you. I was urged to communicate to the Philosophical Society the debate that had taken place between you and Agassiz, and to express my opinion on the subject - I had even prepared a long paper; but on reflection, and fearing that my powers of elocution and want of spirit could not carry me through, I remain silent. I was afraid also that you would take it en mauvaise part. I send you, however, the substance of my ideas on the subject, after having communicated my paper to Leidy who favors my views, and to James who expressed no opinion whatever. You will oblige me to keep me en courant of the forthcoming debate, I wish to know how you will ^{(get out of it and to} what you have to say in support of your hypothesis. We shall not see clear in those mysteries before our poor souls have passed to the other world.

You have not been willing to accept as good my new species of Dodacathemon Ellipticum, Nutt. which I will now call D. Nuttallii as its leaves are not always elliptical but rather spatulate.

I will perhaps convince you now that I was in the right. There is a capsule of the original Nuttall's specimen, see how different it is from the ~~the~~ those of the other forms, which are oblong and pointed and always dehiscent in the mature state. This is oval subglobose and depressed at top and not dehiscent as in the other forms.

I do not know what I shall do with the small fellow I sent you, coming from Salt Lake; it is marked Even or Leven river, May 16, in a black loam. Black loam is a rich soil and consequently my little plant is in its natural state. Had it come from the mountain or from a bad soil, I might have looked upon it as a starved plant, but I cannot now, and I strongly suspect it to be an individual form having all the qualities of what we call species.

With the view to get something more from that region, I have presented a paper entitled "A Sketch of the botany of the Great Salt Lake of Utah" made up from the specimens that have been collected by Fremont, Hensbury, Beckwith and Mr Carrington. I thought it would be flattering to the Mormon lady, who Col. Kane tells me is very intelligent, to see her name in print. If my Sketch is now very far from complete, it will afford me the occasion to complete it by new accessions to it through that Lady. Kane has left a sum of money

to a Mormon friend to collect for him.

As a botanical news, I have seen some fine specimens of *Draba brachycarpa* collected at Manayung 6 miles from this city.

Very cordially yours

E. Durand

Phil. April 16th 1854.

Oct 59

Prof. Asa Gray, Cambridge.

My Dear Doctor Gray,

After having first acknowledged, with thanks, the receipt of your paper on some Rubiaceae, brought to me by our mutual friend Mr. James, I will solicit a few moments of your attention: On the announcement of the death of Mr. Nuttall, at one of the last meetings of the Am. Phil. Society, I was appointed to deliver an obituary and biographical notice of our deceased friend. Had I been present at the meeting, I would have declined that honor, on the plea that I was much less acquainted with the life of N. than several other Members, who had been his intimate friends and were much more competent to perform the task.

At the next meeting, I offered unsuccessfully my objections and, on the promise of assistance, I did yield, seeing that nobody would take off the burden from my shoulders: I would not have the memory of one who has done so much for our science, neglected and passed over in silence by an institution of which he had been a prominent Member. I am, therefore, collecting materials and have already a good heap of them. I am now wanting some little details about Mr. N.'s residence in Cambridge, which you can easily give me. He must have been called there in 1823, and left in 1833? Was he at Cambridge in the capacity of Professor of Botany, in the Chair you now occupy, or as an adjunct of Dr. Peck, or simply as one of the curators? Has he left any particular trace of his passage in your regions, recollected

Some anecdotes

by his contemporaries (and can you give me some informations about his ways & means, when he was in Cambridge?).

A more, and truly important service which I beg of you, is your assistance in a critical opinion respecting his scientific labors. I do not feel sufficiently posted up to give my own, and I have not as yet looked seriously into his works to form a correct opinion of them.

As an explorer, Nuttall seems to me to have done more than any other single Botanist. To him we are indebted for about 200 new genera of standing worth, and an infinite number of good species. He has been indefatigable in his labors, fearless, and has accomplished the most harassing and dangerous journeys ever undertaken by any other Botanist. As such he deserves a good notice.

His Genera of N. A. plants, I have always much admired; it is his best production, without any doubt. His descriptions are accurate and evincing a peculiar botanical acumen characteristic of one born for such parts. Had his descriptions been founded upon microscopical inquiries as yours are, he would perhaps have curtailed the number of his new creations, but his observations were always made with a small magnifying glass of very moderate power. His defects have been in his excessive ambition to surpass his colleagues in the number of his discoveries and specifications. If in his last publications of R. Mtn Oregon and California plants, he has unreasonably multiplied his genera and species, it may be owing to the above cause, as to the

rapidity of his explorations through regions which he has not had the chance to revisit; Telling, for instance, in the coining of a new genus, for a distinctive mark, a trifling deviation of another generic form, and in his new species, simple alterations of forms, brought on by difference of soil, of exposure, of age. This looseness at creating new genera and species has resulted in the just curtailment of his new creations, many of his new genera into subgenera or sections of another genus, and many of his species into varieties, to say the least. However, we must admit that he faithfully pointed out ^{generally} the actual difference, however trifling, existing in the objects of his comparisons. Has he not in his Sylva introduced too many simple shrubs which ought not to be there?

Nothing, or very little is known of Nuttall, in this city, before 1817. So far his acquaintance had been among gardeners, The Bartram, Carr, Mearns & others, all dead except Col. Carr. He began to be known in the scientific world in 1817, when he became a member of the Academy of Sciences & of the Phil. Society.

He is said to have died at 73 years of age. To me, who have seen him frequently before his departure for England and at his last visit, he appeared already an old ~~broken~~ man. When I last saw him, I took him for a man about 68 to 70 years of age. I shall give no names of my informers in my notice.

Please, give me a full answer, I shall be much obliged to you and beg your indulgence for the trouble. Very sincerely yours
E. Durand
Phis. Oct. 7. 1854.

Phil. March 29th 1860

Dear Dr Gray,

I have not been able to meet Mr Vaux, who attends to the accounts of the Publishing Committee of the Academy of Nat. Sciences; but I left your paper in the hands of the Librarian, to be delivered to him, when he would come. I have just learnt that he had written to you directly on the subject of your inquiries.

I have, therefore, nothing to say in this regard; but I will not let this opportunity escape, without availing my self of the pleasure to say something about botanical matters. My notice of Nuttall is not yet printed. A good deal of matter about new laws and regulations, a lengthy paper on philological subjects and a serious sickness of Mr Lesley, who attends to the publication of the proceedings, have suspended for a while the publication of the matter in hand. So soon as my notice of Nuttall is published, I will send you a copy, with a short review of his labours, which, if worthy of consideration, you will favor me with an insertion in Sill. Journal. I address you now, although late, a copy of a paper which I published some time ago in the Journal of the Phil. Society, entitled "Sketch of the botany of the basin of the Great Salt Lake". In publishing this poor paper, which I still hesitate to send you, I did not expect to give much scientific information, but I hoped to stimulate the botanical zeal which Col. Kane had raised among the Mormon Houises, and induce them, by the means of 25 copies sent to them, to pursue their work of exploration and thus advance somewhat the knowledge of the botany of that singular region of permanent fields. In this consideration I must be excused for poverty.

I have been very actively employed these last six months in framing

a general catalogue, with synonyms and localities, of all the N. Amer. plants, published to this date (at least in the books at my disposal) — to be used as an index to my herbarium, and to ascertain by means of marginal asterisks, what I have and what I have not. This was a great desideratum to me, as well as to other botanists, until you have published a new flora of North America. I have learnt with pleasure that Thurber had been engaged by the Smithsonian Institute, to make such a catalogue. Such an undertaking could not be done with satisfaction, unless assisted by you and Dr Torrey, and under your direct supervision. Thurber, I have no doubt, will have these advantages. From what he has written to me, it will be done on a large scale and wanting nothing but your descriptions to form a complete Flora. So far, my dear friend, our Amer. Botany is ~~very~~ yet very much confused through the difficulty of procuring books and as to the names which may ultimately be adopted. The puzzle must be solved by you and Dr Torrey; no other can do it but yourselves. I have no faith in foreign botanists about our plants. One half at least of their new species are superfluous.

In perusing my herbarium with the view to mark what I possess, I have found that, of between 9 & 10,000 species or varieties of N. Am. plants published to this day, exclusive of anophytes, I had 6200 well determined, with a good lot that are not determined as yet. I lent Thurber, from my own collection and that of the Academy, more than 200 genera that he had not seen. In many instances, I find 2 or more species still retained as distinct, which to me are indubitably ^{various} forms of one type; I think also that I have some that have not been described.

With a more careful examination, which I have in contemplation, I think I would be able to furnish you some useful remarks. Will you permit me to undertake it and to send you the specimens upon which my remarks will bear? Taking only the first genus of our Flora, Clematis.

I would probably prove that a specimen marked by you C. Douglasii, is the same plant as Nuttall's own specimen labelled by him C. Wyethii. — That the Texan C. reticulata of Wright is the same as C. Pitcheri ^{of Nuttall} and perhaps a var. of C. reticulata of Walter. I have also a specimen from Wright's collection under the ^{same} name reticulata which seems to differ from all the other specimens by its very large leaflets, not very reticulated and comparatively membranaceous. I have another queer clematis from James Read's collections, and probably from the Southern States, with the mark C. Crispus, although the flowers are paniculate, which is an undescribed, if really American. The leaves are pinnate, smooth with narrow-lanceolate leaflets like the lineariloba of DC. (which I have, I think, and is different from C. cylindrica). I send you a bad drawing of a leaf ^{of Read's plant} to show you my artistical skill? The flowers form a small panicle of 3 or 4 flowers &c.

These remarks would, naturally, bring me to offer you a few critical observations on some points of your last Manual — not in a dogmatical form, I pray you to understand it well, but in a spirit of humility and merely with the view to get enlightened by yourself whom I consider, deservedly, as the head of American botanists and No. 1 among the best botanists of the present age. To it dit sans flatterie, mon cher Docteur.

I confess that I have been disappointed with the Mex. Boundary Botany. I understood that it would give us the names of all the plants of Fendler, Lindheimer and Wright that had not been published heretofore, but, with the exception of the last collection of Ch. Wright, to which I have not participated, every limited number of the rest has been mentioned. I have thus, et, in my herbarium many ^(of those gentlemen) specimens under

the specification "incertae" and scarcely any means of ascertaining what they are.

Tell me is not Veratrum Hoodii my V. Californicum of H. Prater? it looks very much like it.

Very sorry indeed to have detained you so long, but you will excuse me, I am sure. Believe me very sincerely your affectionate
friend E. Durand

* After writing this letter, I have been induced to look again at Mr Read's Clematis to ascertain positively whether it was N. American. Mr R. had collected in the East and West Indies as well as in our Southern States and a foreign plant might have slipped in his American herbarium. The label, in his own hand writing is simply this Clematis crispata 9. 34-22. No proof then that it is an American species! Referring to Dr. prodrorum, I find n^o 7 the description of his longiloba, a Chinese plant, answering perfectly the specimen of Read, which of course I set down as Chinese.

Buckley is now in Texas. He has joined Prof. Shumard in his geological survey of Northern Texas, a section not yet visited, I believe, by botanists.

mauvaise foi. As to representative government - I
begin to be tired of it and have come to the conclusion
that more public good can be done by a wise King,
surrounded by wise heads, than by a set of barons
who have at heart their selfishness or their vanity.
Humanity cannot create anything perfect; but I see
here more security, more justice, more honesty, more
true happiness than I have of late seen in the U.S.

If you have anything to ask in Paris, write to me;
otherwise I shall hear from you with great pleasure.
I will not return before October.

With these, my Dear Dr. Gray, and with my best
respects for your lady, I remain very cordially yours.

E. Durand

86 Boulevard Beaumarchais,

Paris July 27 1860.
86 Boulevard Beaumarchais, 2

Prof. Asa Gray, Cambridge,

Dear Sir,

Above two months have already elapsed since I am
in France, without even thinking of our science. I have
seen, passing by, many old acquaintances in the fields;
and past many Oregon and California flowers in the
gardens, without scarcely looking at them. All my attention,
so far, has been spent upon my numerous family who
has been feasting the return of the long exiled brother
and uncle. You will be astonished to hear of the immen-
se increase of that same family, during the thirty five years
of my absence. I had left six brothers & sisters, with eighteen
children, and I have found that number increased to
seventy eight, belonging to four generations and all healthy
and in prosperous conditions, all cordially united and all,
if not personally acquainted with their American relative,
having either corresponded with him, or heard their father
or mother affectionately speak of their youngest brother,
the American citizen. The reception I have met at the hands
of those good friends has been most cordial and, so far, I have
devoted all my time to the best portion of them, visiting
alternately each scion of the main trunk and passing my
time most pleasantly. I am now starting for old Brittany,
my native province, to see the rest of the family and, only
then, shall I be permitted to think of Botany and Botany.

On my arrival in Paris I delivered your good letters of
introduction to Messrs. Decaisne, Sprach and Gay. I have
seen Mr. Decaisne three times, Sprach once and the kind-hearted
Mr. Gay more frequently. They have all received me kindly.

and I will see more of them when I return. Mr Gay having had occasion to see Mrs Vilmorin and to speak of me, she expressed the desire to see me, and begged Mr Gay to bring me to her house, when she would be at home. A time was appointed and I saw her yesterday. Otherwise, I would not have called upon her, as I had a prejudice against her deceased husband who had not, as I thought, acted kindly towards me in relation to my memoir on Michaux. I did not know the bad state of his health for which I am now to account for his neglect.

Mrs Vilmorin received me in the most graceful manner; every thing in her brought back to my memory the happy expression of one of your letters: "That she was the best type of a French lady that you had seen!" She inquired much about you and your lady to whom she very justly returns the compliment addressed to herself by you. She showed me with some exultation your portrait hanging over her mantel piece and told me that, since the death of her husband, she had not had the courage to write to Mr Gay, but promised me to make me the bearer of a long epistle to her. I shall not fail to call and see her at her country seat, and remember the promise she has made me. I will also see old Mr Michaux.

Mr Decaisne asked me some inquiries about the Comandra: If I had remarked that it was a parasitic plant? I recollected only that I had generally found it under the shade of large trees. He suspects that all the Santalaceae are parasitic and requested me to inquire if the Buddleia

was not so? I think he has written to you on the subject. A large specimen of Comandra livida, which I have seen at Mr Gay's in a collection of British American plants by Bourgeau, has every indication of parasitism. The roots are very long, almost horizontal and equal in size at the two extremities and are abruptly broken.

In the same collection, which is really beautiful, were numerous specimens of Hedysarum. My idea that the 3 species described in your flora, might be varieties of the same, is quite wrong. There were two very distinct species, one marked Boreale has very large brown stipules, the other labelled MacKenziei had smaller pale stipules, with larger flowers. Dr Torrey has justly named his Utah Hedysarum H. MacKenziei and mine belongs to the same. As the Lathyrus venosus, our plant shows many different forms, some with large oval leaves, others with narrower & smaller leaves. The same with the flowers.

I am happy to say that I found considerable improvements in France, in every thing. The progress in agriculture are immense; the roads are splendid; the cities embellished and admirably clean and the people apparently happy and contented. I have verified the expression of our bishop Porter of Philadelphia "The French ^{are} nation a nation of well dressed people and happy faces; I have not seen a ragged man in the whole of France!" They talk abroad of liberty - I have met here every liberty possible; I have heard the freest conversations. The only restraint is on the press - the press which with us is too frequently scandalous, lying, abusive, & calumnious.

Leaves, under surface of the leaves pale and much ~~reticulated~~,
fruit 6-10. angled; two lateral wings double in width than
the 2 others. Style long; mucronate. Small tree.

Fraxinus Nuttallii. Leaflets 5-7, lanceolate acute at both ends, irregularly toothed; upper surface smooth; under surface pale and subpubescent along the midrib, short stalked. Petioles long, glabrous; fruit ovate, lanceolate. In winged, acute at both ends.

with a note on Nultak's *P. triptera* which he believed
was a new species of *ene drupa* ad. small gr. in 1891

Carya Texana. Leaflets 7-9, broad-ovate or ovate-lanceolate, sharply serrate, subobtuse at base, glaucous beneath, acute, sub-obtuse or decurrent at base. Stemsinate and pinnate cartilagin. subpubescent. Fruit globular, larger, slightly 4 angled. Shell thin separating to the base.

Trees 3-4 feet diameter - 40-50 ft. high, leaves 8 inch long - 2-3 inch broad. Fl.

Quercus shumardii Leaves oblong or obovate in outline, smooth, deeply serrated, acuminate, 2 sinuately broad, convergent, 3-5 on each side. Lobes many toothed, teeth sharply & setaceous acute. Acorn globular, or ovoid-oblong, subacute. Cup shallow, slightly larger. Scales acute. A large tree with shining deep green leaves. A form resembling that of *Q. rubra*, but more acute.

* Gyrocampa Texana. - Larva ovate ^{the} oblong, ^{the} outline smooth both sides, deeply ^{the} sinuate pinnatifid with broad divergent sinuses, 3-5 on each side. Lobes 1-5 toothed with acute, ^{the} serrations. - Acute broad oblong acute

Carp. hemispherical, slightly tinged, scales acute, closely appressed. Small tan old & new. No T. dorsal fin. 60-70 high. In full summer 60-70 high very little g. Phello.

G. Durandii. Leaves obovate entire or slightly 3-lobed at apex, with rudiments of one or more lobes at the margin lobes very obtuse. When mature smooth on both sides. Acorn rotund or obovate-rotund. Very short, 3-lobed, acute, sharp, appressed. Leaves 3-4 inches long, 1-2 in breadth. Acorns $1\frac{1}{2}$ - $5\frac{1}{8}$ inch. long about $\frac{1}{4}$ inch. wide, scarcely one eighth of an inch being included in the cup.

Tree 2-3 ft in Diameter - 40 to 60 ft. high - seen
in pond. Q. agrifolia, Frax. flor. Castan. Myrt.

It is not on Quercus coccinea. ^{parvifolia}

Dear Gray

Will you oblige me to give me your opinion about
these new species as soon as you possibly can. I have
to report at the next meeting, Tuesday next. Buckley
is, I think, a good observer in trees especially which
seem to be his favorite object. Still he requests me to
inquire and not to publish any that might have been
described by others. His remarks on those trees are
pretty full. I expect him in December with a copious
harvest of Texas plants. A sister Linnaean

Philadelphia Dec. 27th 1860

I send you herewith the description of some new plants by Buckley. You and Dr. Torrey had requested me to defer the publication of this paper; but it was too late and, on the other side B. had requested me to hurry the publication in fear to be anticipated by others. In matters of trees, I have a great confidence in Buckley who has made trees his speciality.

Now, my dear sir, my best wishes for your happiness during the forthcoming years and many succeeding others.

Yours sincerely P. Durand

My Compliments & regards to Mr. Gray.

Reflection faite. If you publish my notice of Nuttall in Silliman's Journal (which, I think, you ought, if not for me, ^{at least} for his memory) do not publish the review of his works, which I have added in M.S. I fear that such review be above my ability and discernment.

Mon cher Docteur,

I have two french letters before me which I must communicate to you: One is from M^r. Decaisne, thanking me for an invoice of American cherries, cultivated in West-chester, and fully equal to the finest cherries or maroon of Europe. In regard to this, he ^{asks} me in what American Botanists find a difference between the C. vulgaris & C. versu? He adds: "Après avoir vu les vôtres (cultivés) Je me demande si en cela ils n'ont pas commis une erreur. J'ai tout lieu de croire que les deux arbres sont identiques spécifiquement, au même titre, au moins, que l'Indien Américain est identique spécifiquement avec un Européen quelconque. Plus l'examine les faits de variabilité dans les plantes, plus je trouve que les Botanistes descripteurs ont multiplié les espèces sans raisons suffisantes." Here is an opinion which is yours and mine. I have never been able to find a difference, except in the size of the nut - and now by proper cultivation, this difference disappears entirely. Ours, in the wild state, are more savourous and sweeter to my

taste, and this consideration induced me to send to France This fruit improved in size; but I did not taste it before sending it, in order to not to diminish the number I had to send. Many of them arrived rather injured, and Mr. D. in tasting a few of them did not find much difference between them & French cherimots, only, perhaps, less astringent and sweeter.

Mr. D. begs me to send him seeds of American Cucurbitaceae which are wanting in the collection of the garden of plants, and that with the view to raise them and study them for a monograph of that family. The only ones, they have now are: Cucurbita peruviana, The two echinostylis and Sicydium Lindheimeri. He wishes particularly Bryonia Boykinii, which he says is quite unknown to them.

Now, my Dear Dr. Gray, the object of this letter is to ascertain if you can now, or next autumn, procure for DeCaisne some seeds of American Cucurbitaceae, such as Sicyos angul. Melothria pendula, Bryonia B. Cyclanthera discolor, Elaterium Wrightii & E. Coulteri - Megarrhiza californica & oregana, cucurbita digitata, Apodanthera undulata, &c. if there are others?

The second letter is from Mr. André Leroi of Angers and here are his words: "Je serais très-heureux d'être en rapport avec votre célèbre botaniste Américain, Mr. Asa Gray: J'aurais prodigieusement à gagner avec un savant aussi distingué. Veuillez donc lui dire que mes collections sont à sa disposition, et pour lui faire connaître la plus grande partie de ce que je possède, Je lui fais passer, franco, un catalogue général et descriptif des végétaux que Je cultive. S'il a la bonté de m'écrire, Je mettrai tout mon bonheur à faire tout ce qui lui sera agréable."

Such are the words of one of the most interesting and amiable men I have met with, not a mere gardener, but a gentleman of education and manners and at the same time a good botanist. Never go to Europe, without seeing him and his immense collections of ligneous Vegetables, capable of growing in open grounds in that select and perhaps unique climate of Anjou.

A few words from you, if you please, before I answer these two letters, and some details about seeds of Am. Cucurbitaceae.

Philadelphia Dec. 14th 1861 ~.

Prof. Asa Gray, Boston Cambridge,

Dear Doctor,

I received, day before yesterday, your invoice of Piller's Pic plants. They are really beautiful and I shall not regret the money they cost me, however great my miseries in these eventful times! You may draw on me whenever you chose, although the Jury-money, so laboriously earned, shall not be paid in before next March. I have recognized many old acquaintances which I have from Nuttall in a sloven condition; These are dandies in comparison. I hope you will send me a list of names.

Upon the receipt of your favor of Nov. 30th, I wrote to Dr. Darlington on the subject of *Gymnogramma leptophylla*. I sent him a specimen with Mr. Minus' own label, requesting him to write to that gentleman to ascertain whether he really found that fern; its precise locality and any other information. I have received the Doctor's answer only this morning. He had been absent from home, and as soon as he has ascertained the address of Mr. M. he will write to him and transmit us his answer.

No! My dear Doctor, You have not gratified me with a specimen of your Yankee *Calamagrostis*, but I have one in my herbarium from Labrador, which, I think was given to me, some 30 years ago, by Mr. Steinhout, probably from the collection of Labrador Plants of the Rev. Kohlmeister. My specimen is rather diminutive and I have no objection to marry it with a fine fellow from Massachusetts. I am anxious to see what your theory is about emigration of plants; but I would not be surprised if this *Calamagrostis* had come to you from my own native province, Maine, which was formerly a healthy country and has scarcely any at present, through the great progress of Agriculture. Several families from my own town had emigrated to New foundland where I think ^(they have introduced) that foreigner is common, ~~through them~~. Do not publish the 3^d edition of your manual, without getting some new information about the vegetable growth of our neighbourhood. A botanical club has been formed in the bosom of our Academy, which, for these three summers, has been operating very actively in a circuit of ten miles round the City and has made very important observations. The principal Members are Prof. Leidy, Bridges, Dr. Barnack, Charles & Aubrey Smith, &c. I have found myself, in our common, *Lepidium campestris* & *ruderale* abundantly mixed up with the famous *Cypripis Virginica* of Nutt., which, you know, is the very *C. Schoenoides* of Europe.

I have heard that *Cerastium pratense* had been found lately in N. Jersey, I have it also from Northern New-York and 4 Var. *linearifolia* from Greenland (Kalm's arct. plants) Dr. Bridges has found two localities in our vicinity of *Duchesnea indica*. &c. &c.

Now to another matter: I love discussion! If the word parasite means one that lives at the expense of another, I say that our *Gerardia* are not parasites. I spent one week, last August, at a friend's country seat, in the neighbourhood of Bethlehem. There I found in abundance and in bloom, *G. pedicularia*, *flava*, *quercifolia* & *tenuifolia*. That was the occasion to verify the parasitism of this genus. I pulled the roots with all possible care, breaking (the large blade of a beautiful knife) and to my astonishment I found the roots extremely small for such vigorous plants, scarcely 2 inches long, ^{& forming} with a tuft of fibres almost capillary, upon some of which I perceived very small tubers or glands, not larger than 000. In a few instances these glands were attached to fibres of grass roots or to rotten sticks of wood - but in no case, were they attached to such roots from whence they could draw any substance. After many repeated inquiries, I gave up the examination with the persuasion that our *Gerardia* were no more parasite than the Ivy which draws no substance from the brick-wall to which it is fixed by something similar to these glands (which ought to be examined microscopically). I looked upon these little tubers as instruments provided by nature to fix these small roots more firmly to the ground, perhaps by certain attachments, and protect those tall & heavily loaded stems, against the action of the winds.

Such was my view, when I received a letter from Decaisne, speaking widely about parasites (It is a hobby with him) I wrote to my Bethlehem friend to request him to pursue our researches of August, and send me roots taken from the ground with all possible precaution and ascertain whether they were connected through the glands with any other ^{living} roots. Now these roots, so small in August, had grown considerably, some were the size of a small quill, 8 to 10 inches long and the rest almost capillary and all extending horizontally, or almost so, a few inches, (2-2½) below the surface. The glands were irregular and much larger than in August. Several of the stouter fibres were connected together by those very glands, which were also fixed to rotten sticks and in one or two instances to living roots. Here follows what my friend says in this regard: "Obéissant à votre désir, j'ai examiné avec le plus grand soin les racines des différents *Gerardia* qui se trouvent dans mon voisinage; elles comprennent

"Celles des *G. flava*, *quercifolia* et *pedicularia*, il était trop tard pour la *tenuifolia*, toutes
"avaient disparues. Il eût sans doute été plus favorable, pour surprendre le secret de ces plantes
"qu'elles fussent en pleine croissance et je crois que le mois de Juillet aurait été plus propre à cet
"examen. Le *Gerardia*, j'en suis convaincu, est une plante parasite, mais à quel degré,
"c'est ce qu'il est difficile de déterminer. J'ai trouvé des racines presque sans glandes et
"qui vivaient dans une espèce de terre de bruyère et autres matières végétales.
"presque isolées des racines voisines. Vous trouverez parmi celles que je vous envoie, des
"endroits marqués par un petit morceau de papier blanc, où les glandes de la racine du *Ger.*
"sont fortement attachées à une racine étrangère dont, comme une sangsue, elle se nourrit
"sucrassière, mais je ne crois pas exclusivement dépendante de la cuisine des voisins
"pour leur subsistance."

This case, cited by my friend, is an isolated fact with half a dozen large roots he has sent to me, and many such attachments as the afore one are visible between the largest & smaller fibres, or dead branches half rotten. Instead of convincing me of the parasitic condition of our *Gerardia*, I am the more inclined to see in the working of their glands the formation of a kind of net-work connecting the fibres together or fixing them to anything in their vicinity, to give to these roots a power of resistance against any external violence. Compare our *Gerardia* to the true parasites, to our *Phoradendron*, *Lucentibium*, &c. and you will, I think, be convinced that they do not deserve that ugly name.

Decaisne considers the *Scutellariae* all parasites. Buckley, who has seen much of his *Buckleya* & *pyrularia*, says they are not and, although I have good reasons to believe our *Comandra umbellata* a parasite, he assures me having found patches of this *Livida* entirely isolated and remote from any trees or large plants. You have both *Buckleya* & *Pyrularia* in your garden, what do you think of them in this regard? I have ready for you several good specimens of *Gymnogramme leptophylla* which I will send you so soon as I receive a confirmatory letter from Dr. Darlington.

Adieu! Adieu! Believe me ever yours
C. Durand

With respects to your lady.

Prof. A. A. Gray
Cambridge

Massachusetts.



are ~~the~~ parasitic, even in part.

— Shall I not add (not) between are & parasitic?

I have received a note from Mr. Haussner, who seems to think that I deny his experience in relation ^{to} parasitism of *Gerardia*. I had not read his paper and my opening to you on the subject was simply a passing remark. He promises to convince me next year and if I am not gone, I will go again ^{next summer} to my friends, where the *Gerardia* are common and inquire for myself to what degree those plants are parasitic.

Now good by and many good wishes for yourself and better health

Yours sincerely

E. Durand

Philadelphia Dec. 21st 1861

Prof. A. Gray, Cambridge

My dear Doctor—

I send you herewith the answer of Dr. Darlington and Mr. Mc-Minn, which settle the question of *Gymnogramme*. Please inform Mr. D. Eaton of the circumstance, as I had sent him a specimen addressed to New Haven, to ascertain whether I was right. I had his answer dated N. Y. but without address. I have not the less fine specimens of that beautiful little fern at your service.

I was much astonished, yesterday, to receive the visit of Mr. Mc-Minn himself. He is a very intelligent gentleman, an Engineer by profession, and somewhat of everything in Natural History. In botany, trees, Cyperaceae and Gramineae seem to be his specialities. I saw in Watson's Herb. a numerous suite of *Carices*, among which I might probably be found two new species. I have seen described somewhere in Sprengel ^{or} ~~Kaule~~ ^{Kaule}, under the names of *C. Watsonii* & *C. Milvintonii*. This gentleman, in the course of our conversation, made some very interesting remarks upon several genera of our trees, which I begged him to communicate to you. Botanists, living in the country, have advantages ^{for} of observation which town residents have not, especially with regard to trees.

In the small ferment by M^r M^r Minn, I can see nothing more than Woodsia Fluvialis, but he persists in finding some difference - so judge yourself and decide. He also speaks very convincingly of a non described species of Vine, formerly very common on both sides of the Delaware and on the banks of the Lehigh, which is that known by Grape-growers under the name of Delaware grape. He pretends that this vine is neither Labrusca, nor Oestivalis and has not as yet been described. I have seen a small vine yard of it and tasted its excellent fruit, but I saw nothing in the ~~habit~~ ^{shape} of the leaves or else that could prevent me from ranging it among the forms of Oestivalis. From my observations, last summer, on our vines, I have come to the conclusion that the most permanent and striking ^{distinctive} character with our northern vines, Labrusca, Oestivalis, Cordifolia & var. ^{and their derivatives} was the raceme which, in the Labrusca is short, simple at the top with generally, one raceme at the base, the fruit large and not crowded; in Oestivalis, it is long, compound ^{& narrow} the grain medium size and crowded; in the Cordifolia & var. the raceme is also long & compound; but the fruit small and scattered and rare through the abortion of many flowers.

Your favor of 17th was handed to me, whilst I was in conversation with M^r M^r Minn. I would rather

have you to draw upon me as my account is in a saving institution which has no correspondence with any of the Boston Banks. As to Catalogue of the Pike's pine plants I am in no hurry at all.

Your assertion that Gerardiae have not succeeded, raised in pots and isolated from other vegetables, convinces me in great measure that they might be parasitic. In saying I doubted they were, I was not adverse to the axiom you have cited, but I attributed the existence of glands, serving to attach branches of one root to ~~each~~ ^{an} other, as well as to other matters living or dead that were in their reach, ^(so as to form an underground net-work) to a necessary means provided by nature to strengthen the feeble roots of such large plants against any violent action of the wind, (this is a very long pulled out by the air sentence!)

As I may use some parts of your letter about parasitism, I have added a negative to the last sentence of your paragraph about Buckleya (which negative, I suppose, has not dropped down from your pen, unconsciously to yourself) Your ^{paragraph} runs thus: "But Buckleya still stands, &c. - - - "I have made a better layer than before - We shall see next spring if it strikes. If it does and I get good plants sorted in the soil and they grow unattached to any thing - - - then it will appear that all Santalaceae

Phil. March 4th 1862

Dear Gray

I have just forwarded by express a box containing Buckley's new species and other plants of a doubtful character, which I pray you to label, en passant. I will also thank you to give me the names of the subjoined numbers of Lindheimer, Fendler and Wright. I am not sure that I found out their true names.

Do not say anything of B.'s plants in the next number of Silliman: Wait until you have the entire suite. Then you could say that you have requested me to send them to you and I have been the . . . to send them to you.

I do not believe that I sent you a specimen of Lithospermum prostratum which appear to be a good species - some of the species are 18-20 inches long, perfectly prostrate on the ground. If I have not sent any, I will do it in my next - If I have, keep the whole for you, I have found a sheet pretty well furnished with other spec.

Yours E. D.

I have, of course, paid the freight, but without taking a receipt, as I paid at my home. Let me know if it arrived safely.

Phil. March 11th 1862

Dear Doctor,

How much I pity poor Buckley! Will you not leave him the merit of a single new species?

In whatever you speak on the subject of his plants, speak only of his published species. They are the only ones of those I sent you that he has named. The others, even his own 11 spec. I had labelled as the probable name or affinity, intending to examine them more carefully when he would have published, as I thought, a complete enumeration of his and Dr. Sincceum's collections.

I have kept at a distance from him all the time he has been working, because he appeared suspicious, and afraid I would steal from him the priority of publishing them. He never consulted me in any thing and I never was so sick at heart as I have been in the awful condition in which he has set my fine Academy's herbarium of which I was so proud.

I have spoken to him of the necessity of labelling with his own hand all his new species in my herbarium. He said he would, but I cannot ask him again before you have returned them. I believe with you that the best plan would be to make the corrections in the same

journal in which the errors were consigned; but, as the Academy's proceeding is not a review, you could not criticized with the same ease as you can in Silliman's journal. The sooner you do it the better, for the man is really suffering under a monomania. There is not a meeting of the Academy that he has not a paper to present on subjects far remote from each other. We had last Tuesday a young man with a collection of plants (badly dried) from Pike's peak very much the same as those of Parry. He had them bought by the Academy and I gave five Dollars for my share with privilege to have duplicates. Buckley speaks already about describing those that in his sound judgement ~~the~~ would be new, and he has made arrangements with that young man for a grand collection to be made next summer, which he, B. would describe and distribute among purchasers. He must be stopped! I have no objection to your mentioning that I have sent you his plants, at your request - and I will tell him myself, when the occasion presents - and it will be soon. I send you seed of another Cucurbita the ovifera Linn. It is a curious fruit resembling

so much an egg that it would be difficult to separate it among one doz. true eggs. I send you herewith a specimen of Lithospermum prae-
tratum. You may keep it, I have another fine specimen with branches 12-15 inches.

Do not forget to forward copies of your paper about Buckley's discoveries to several of the principal Members of the Academy, Messrs. Lea, W. Vaux, Leconte, Leidy, Bridges, Wilson, &c.

Now that Elidurandia is exploded, I hope your next Elidurandia will soon appear.

Believe me, in great hurry,

Yours sincerely

E. Durand

I have a letter of Prof. DeCuir. He does not agree with my theory about the nonparasitism of our Gerardia, but I do not believe in his and I think I can ultimately prove my position by actual experiment. I sent him 2 or 3 Gerardia seeds to work upon.

Philadelphia March 29/62

Prof. Asa Gray

Dear Sir

Mr. Darwul

has just showed me your letter
in which you criticize my botan-
cal descriptions pretty severely.
The truth is I was rather hasty
& besides the paper was hurried
through the press without affording
me sufficient time to correct the
proof sheets with care.

I brought few specimens from
Texas owing to the heavy rains
in Northern Texas last spring
many of them are very poor but
still enough remained for de-
scription & after depositing the
better specimens in the herbarium
of the Academy little remain-
ed for Darwul. I beg you to

delay your criticism of the
paper until the July number
of Silliman. I would not ask
this much had I not been
very unfortunate in losing a fine
property by the treachery of a
pretended friend and I have
two little motherless daugh-
ters to support. Please wait
a little. I have every confidence
that most of my described spe-
cies will prove to be good. I am
confident that Clematis Col-
oradoensis is not Clematis Big-
elowii Torr. but I have not time
or will the present depressed
state of my feelings permit me
to compare notes in my room
in the absence of books of refer-
ence. I send you another pa-
per & will be obliged if you
will let me know by letter
your opinion of it Yours truly
S. B. Buckley

Phil. 23^d March 1862.

Dear Doctor.

I have done my duty, however painful, with regard to Buckley's affairs; what has not been done, did not depend on me. The week before this, I read your letter of the 7th to Leidy & Vaux of the committee of publication and communicated the same to Buckley, to advise about what was to be done? Yours of 15th ~~also~~, received, Monday morning, was also communicated in the same way and, between us four, we had a meeting of several hours. All Buckley's papers were printed and the first part was distributed; should the last paper be withdrawn was the principal question; they included Cyperaceae and Gramineae which I never saw before that day, when Buckley presented me the first proof to correct. I do not know how they went to the printer, but certainly, they had not been presented nor sent to the committee ^(as far as I know) — Although B. asserts they have.

What was to be done? Was a question difficult to solve. It was printed — B. could not pay for the printing ^{if withdrawn}; the Academy's Publishing Committee is without funds, and Buckley is confident that the last part is better written than the first, ^{he} worked with more attention and that most of his new species will prove to be good. We could not find any remedy to the sore inflicted and it was finally agreed that it would remain so — ^{for} expecting your indulgence, which Leidy said he would write to you. Whatever may be the result, I do not want to have anything more to do with it; I leave it now between you and Buckley, who, I fear, has ceased to be my friend.

I pity the poor man, indeed! He has been working most assiduously since July and I have no doubt, with full confidence in his powers and accuracy. He has, however, been guilty of little tricks, perhaps unintentional, such as presenting his papers at the last meeting before the business meeting so as to give the Committee but 7 days to peruse his papers ^(the first of which was read by none) And I can swear that the Gramineae were no part

of the last set that was put in my hands. He knew that I would oppose the printing of *Gramineae*. I had given him your advice and mine in this regard - with a warning - (This confidentially)

Now, Dear Gray, wait until you have his specimens to compare - He might say that mine are not authentic; and insist upon having them sent to you. I was urging him this morning to let me have them; but he answered he would do it, when the weather would permit him to work upstairs, when there is no fire now. I have not been able to bring him to my home to show me the new species of the second part of his publication.

I have done with him!

— " —

I have been occupied this week with the plants of Pike's pie, brought by a young man (of the name of W. J. Howard and bought by self & 2 other members for the Academy. They are not from the mountains but from the plains and the vicinity of Wreka. They were collected in June. As they are mostly different species from Perry, I will send them to you as an object of botanical geography. which it might be proper to add ^{them} to your enumeration ^{of Pike's pie plants}. I do not believe there is a single new one and it is curious to see how many of our Atlantic species reach as far as the Rocky mountains. What I will send you is my share of *olepictata*, with a few exceptions which being unique specimens, I shall return to the Academy's herbarium. The collecting a new of Howard will not interfere with the future collections of Perry and the more collectors, the better known will these regions be. I will send you at the same time the Arctic plants of Dr. Hays.

Very cordially yours

E. Durand

I presume Buckley has informed you
himself that he has not delivered your letter
to Leidy and ask for all possible indulgence
and do for him what you can.

Adieu!

Phil. 31 March 1862

Dear Doctor,

I write to you in haste to let you know
that, to this day, Buckley has not delivered
your letter to the Curator, which you say
you have dispatched under his cover. He has
not said a word to me about it and has
worked very little in the Academy during
the last week. He is really acting quite foolishly,
with little frankness and confidence towards
those who have shown friendship to whom
would be much better, they might help him
to get him out of his troubles. I think he medi-
tates leaving Philadelphia for other quarters.
Write directly to Leidy, Acad. of Nat. Sciences -
I have, this morning, communicated your
letter to him. Enough about Buckley.

I am preparing for you a package
of my Pike's pic plants obtained from Mr.
Howard. I send them to you with the view
that you may ascertain their species, and add
to the enumeration of Parry's collection those
among them that were not in the latter's collection
and there are many - about one half, I believe.

Phil. Apr 7th 1862

Dear Dr Gray.

Your note dated 4th was received this morning. You see that I am wide awake. You have since received what plants Buckley left for me at the Academy. I have not seen him for a week; He comes no more to the Academy and his conduct towards me has been so singular that I shall not care to see him.

As I visited the Botanical room this morning to obtain for you the *Oenothera* & *Castilleja* of Nuttall, I made researches to find out in the herb. the species specimens of which I had not found in B.'s parcel; but I did not find any - It is probable that the parcels upon which he made his descriptions were sacrificed under the directing process. I could not look for the gramineae, the room being very uncomfortable for want of fire.

Please to acknowledge to him the receipt of his specimens and mention which are wanting and whether he will send you his *Gramineae*. I do not want to have anything more to do with him directly. He acts too foolishly!

I have - fortunately found all the Nuttall's
authentic specimens required, You will remark
that there are three from my own herbarium
I have added them to give you a better chance
to see their specific characters, As specimens
being generally quite incomplete.

I have nothing more to say, except
fare you well & believe me ever yours

E. Durand

Phil. 22 Avril 1862

Cher Docteur,

J'ai mal une bien longue réponse à faire à votre bien longue lettre du 19 courant. --- and my eyes are very sore! I have to take up your letter with the view to answer it successively in the same order:

I saw Dr. Hays, last evening, at the meeting of the academy and presented him your thanks. When you have finished your revision of B. first set of New species, please address it to Prof. Leidy, one of the committee of publication. (It is so agreed between us.) Write to L., in a communication intended to be read to the Academy, whatever you may think advisable and what ~~ever~~ may be your opinion with regard to that publication and, as you say, restrain your natural indignation as much as possible and let your revision be limited to the needful corrections; but speak openly in your letter.

Buckley came to bid me farewell yesterday at my room in the Acad. He left this morning for West New-York, promising to return in the autumn and send you the remainder of his plants. I asked him, if I should find them in the herbarium labelled with his own hand — He answered they were and, of course, I will look for them as soon as I have time and will send them myself. I have looked for the four species you have not received and send you the Sericocarpus Woodhousei and the Actinella lanuginosa; as for Fraxinus nigrescens & Saxifraga Texana, he had no specimens with him — He had written the description on the spot itself.

You doubt of the Vericaria arctica? I did also — the spec. is too incomplete. The same may be said of my pretended Arenaria arctica.

I have no time to examine the pyrola chlorantha?

I regret to lose my Pedicularis Kanai on account of the doctor principally for whom I had a great friendship

My determination of Howard's plants was made in a hurry and of course with many faults - I am glad to have the heuchera bracteata and there are a few other good plants. I have put aside and send you all Nuttall's Pentstemon and Castella's that I have found in the Academy's herb. and in mine - I have separated them - please return them so that everyone may have his due - I have added a few other with hasty notes.

Your remarks of the Nuphar sagittata are very satisfactory and I have no doubt that it is so - Leconte and Nuttall from whom they come separately must have been familiar with this plant. I was very much puzzle at one time, ^{as you seem to have been yourself,} with similar thin cordate leaves which I found in the Schuylkill river and which I ascertained some years after to be the early leaves of Nuphar lutea, but those leaves, although of the same form as those from Nuttall, are much smaller - They ^{latter} might, however belong to N. lutea.

My respects to your lady and believe me
ever yours E. Durand

Phil May 5th 1862

My Dear Doctor,

I have suffered much with my eyes this week past and this alone has prevented me to write to you sooner. Besides, Leidy told me he would write to you immediately and I hope he ~~has~~ done it. Your manuscript was presented Tuesday last at the business meeting and every thing relating to your manuscript has been disposed off conformably to your desires. It will be printed immediately and proof sheets sent to you.

You will have to get many extra copies printed, as Beckley has spread a great number about to persons who do not receive the proceedings.

I received a few days ago a letter from our old friend Mr Gay whom I had requested to touch the question of my intention to give my herbarium to the Garden of plants - to Prof. DeCainade -

^{the question}
My conditions were: that my herbarium should remain separate and one of the small rooms devoted to it; and also that it should be labelled Herbier - Durand des plantes de l'amer. Septentrionale. There were other trifling conditions

which are unimportant to me - But speciality
and name. -- These are the conditions which I cannot
waive; and they are not accepted, under the plea
that the herbaria of Lessieu and Tournefort are
the only ones that have retained that privilege.

I am not disposed to place myself on the same
level with those great men, but I have not
laboured forty years, at a great cost, ^{being} ~~to complete~~
^{and brought} my collection, near completion, to consent
to have it scattered into the gulph of a
general herbarium. As a special collection
of a great country, extending from our Ocean
to the other and from the Gulph of Mexico to
the remotest ^{polar} regions - I think mine is an excee-
dingly interesting one, inferior only to yours
and Dr. Torrey added to the plants, about 700 engra-
vings. - Nearly all that has been published to this day.
I will keep it!

Good by my dear Sir believe me as ever
your

E-Durand

Phil. May 14th 1862

Mon Cher Docteur,

Je viens de vous adresser par la poste
une copie complète de la grande œuvre
du pauvre P. B. Buckley.

I send you ^{only one} copy, because the
second part and ^{beginning} part of the third are incorpo-
rated in a number of 100 pages from which
I would have to separate them. The end of the
third part begins the next (or May) number
which the Academy has not yet received from
the printer. But a package of 50 copies of
the entire third part, having been sent to the
Academy, addressed to Buckley, Vaux suggested
the propriety of opening the package and taking
a copy for you - which he has done himself.
Should you insist for two copies, you shall
have them. I added no first from a stock of 4
copies that B. presented to me.

Your review will immediately follow the
third part of Buckley's New-Species in the May
number, and this part will be sent away to
Europe and to Amer. subscribers without

loss of time and by the first expedition (en route)

Now, next Monday, I will collect
for you all the specimens of B.'s new grasses
and send them to you.

You say that I will keep fifty copies
for distribution. It is more than I know names
to send them to. Give me a list of all the
American Botanists to whom you desire
that copies should be sent, I will do it for
you with pleasure and so, you will have
only the European part to dispose of.

I have some business on hand which will
occupy the best part if not the whole of this week.
This is the reason why I say that I will begin,
next Monday, to put aside Buckley's new grasses.

I great hurry for the post-office.

Yours affectionately

E. Durand

Hommage respectueux à Madame.

Phil. 27 May 1862.

Prof. A. Gray, Cambridge,

Dear Gray,

I have to thank you for your botanical contributions which you are good enough as to send me regularly. Really I am quite proud of your attentions to me, and very few of your correspondents could exhibit as many autographs of you, as I could. It is more, I fear, than I deserve. I have Alph. Decandolés papers.

I have not been able, so far, to collect the ^{for you,} three parts of Buckley's papers, without breaking three numbers of the proceedings of the Academy. Except ^{of} the first, B. has not distributed any copies to his acquaintances. The 2^d-part I have not yet, but I hope I shall be able to procure it from the printer and, when complete, I will forward them to you.

The printer sent me yesterday 50 copies of your notes on Buckley's new species. I have ready for distribution in Pennsylvania about thirty copies. The rest, I will send to you,

unless you let me know to whom I should address them. St Louis, Louisville, Ohio, &c. give me the names. It will be no great trouble to me to send them.

I spend the whole day, yesterday, at the Academy's rooms in searching for Buckley's new grasses - I have all except three of which I could find no trace whatever; but I have found others marked by him as new, which he has not published. What surprised me painfully, was to find perhaps the greatest number of them to be grasses, labelled ⁱⁿ by Nuttall's own hand with his own names, with which Buckley had only the trouble to cross out Nuttall's name to substitute his own. To say the least of it, it was a very uncourteous and unscrupulous act of Mr Buckley which I would not have expected from him.

Thurber having become a subscriber to the Academy Proceedings since January last, I have sent him my copy of B.'s 1st part, published in December, so as to complete Buckley's papers.

Now some remarks upon your ~~notes~~:
Parry's R. M^t plants:

Your Parry's Sedum rhodanthum is the same as one in my herb, marked Rhodiola rosea Torr. Fremont's R. M^t Exped. I had marked it: NO!

Have you not made a mistake in calling No. 138 Cerastium vulgatum, var. Behringianum? Should it not be Alpinum, var. B.?

No. 199, not mentioned in your enumeration, I consider as a slender form of Oxytropis Lamberti. Is it so?

Very cordially yours, with
respectful compliments to your lady

E. Durand

Philadelphia July 12th 1862.

Dear Docteur,

So far I have not been able to procure the Pony express Stamps; but I have half a dozen friends after them and I do not despair to get one or several for your young English friend - Only a little patience! I herewith forward you all I could get of Blood's dispatch; one City-post dispatch, and two Stamps with the mild and pleasant effigy of Jeff. Davis, which were given to me yesterday by a Staff officer of our army, just arrived from fortress Monroe. - if you look upon them with a frown, your British friend will not be sorry to receive a rarity.

I have not been able so far to understand the Stampomania which rages abroad as well as in our midst. You and myself are not more anxious to acquire a vegetable Nova species, than certain people, these insignificant little Stamps. Every time I receive a French Stamped Letter, some officer of the Phil. Post-office calls upon me to favor him with the stamping apparatus. Chacun son goût, sa folie! his hobby!

I have been, these six weeks, working very hard at the Academy, to arrange a new the herbarium, which this careless, and disorderly and clumsy man, Buckley, has left in an awful condition. Having a general catalogue of all the North American plants published to this day, and having marked on the margin those which are contained in my herbarium - I have taken advantage of this new perusal of the Acad.'s herbarium, to mark also what is there.

In both of them, I find a great number of Nuttall's specimens which have not been published or have been so under other names - and also many others from different sources, ^{The species of} which I have not been able to make out, and am quite unable to make out on account of my bad eyes which are, every day, becoming weaker. I think it is a duty to you to examine them and publish what is new and I have no doubt that you may find many such. It will be a great labor to hunt them out; but I could do it leisurely, when I replace what you have in hand. I am almost certain that I could pick out between one and two thousand unknown to me and several hundred

perhaps unknown to you. Shall I do it?

I am very anxious to know what this fine Primulacea n^o 311 of Parry - is? and the rest - I understand that the Durandea of Planchon had been placed in another genus and the place was now vacant. If so, do not forget that, if botanical zeal in lieu of botanical science, is a title to something, I have acquired it. Durandea should be Darandia, I think, and if you add the christian name, Elioe - Duranda would be a syllable shorter than Elioe Durand dia.

Very cordially yours

E. Durand

With respects to Mr Gray.

Philadelphia July 29th 1862

Prof. A. Gray, Cambridge.

Dear Doctor,

I received, day before yesterday, your favor dated 25th and yesterday the box of plants in good order. As to the last package I sent you, lay it aside until you have time to look at it. In rearranging The Academy's herbarium, which the interesting Buckley had left in the greatest confusion (and this job took me two months) I have taken out and put aside all Nuttall's specimens and others unknown ^{or} doubtful to me, to submit to you in proper times. I have them at my house and intend adding to them the similar specimens of my own herbarium. All will be kept ready for you, when you want them. I have no doubt that it will clear up many points and add some new species to our present Catalogue.

Last night was the business meeting of the Academy. The assembly was very thin in consequence of the extremely hot weather and because the medical part of our members are almost all in

Camp or in the hospital. There was not neither the kind of people I wanted to pass your paper through, without ^{to} have ~~been~~ ^{it} refered to a committee. The presentation of it was therefore postponed to the next meeting. I regret it, but my broken english eloquence was not persuasive enough with an assembly where my friends, the accustomed leaders, were not present. As your first memoir on Buckley's mistakes has kept people on their guard, a delay of a few weeks will be of no great consequence. You give it to him fairly and nothing more than he deserves.

I received yesterday a letter from our old friend Gay, who tells me that he has written or intends to write to you on the subject of the Isoetes. It appears that thus far, among ~~all~~ the specimens I have sent, all except one, according to Durieux, belongs to the Eiparia, even your Kennebeck forms. The exception is a specimen collected by Dr. Pickering on the Catskill mountains - Will you be so good as to direct the enclosed letter to Dr. Pickering? I do not know his residence.

I have already expressed to you my firm belief that our Wilmington, Darby & Rhode Island

Isoetes are not, as is generally believed, even by Dr. Engelmann, Isoetes Engelmannii, but only large forms of Eiparia - compare with your unique specimen of the Illinois plant and you will be convinced. I would not be surprised if the Catskill Isoetes should prove to be an Engelmannii, from a note of Durieux "a very remarkable Isoetes from the extraordinary size of its spores, resembling much those of the Eiparia and lacustris, but 3 or 4 times larger than in the first of those species, and surpassing in size all the variations observable in the forms of the I. lacustris". He adds: Plants to examine anew and perhaps as another new species to introduce into the genus?

If to these characters, he had added "The dilated base longer than broad" - I would say: It is I. Engelmannii?

I have nothing more to say except Goodbye! & believe as ever your devoted & affectionate

E. Durand

Try to come to Philadelphia, before my children return - This room is the only one I have to offer and I would like to have you and lady for my guests.

Phil. Oct. 18th 1862.

Dear Dr. Gray,

I returned to you, some days ago, what remained of your remarks on Buckley's New Species, 4 Copies of each: The others were duly distributed among our Pennsylvania & Delaware Botanists.

Poor Buckley! — I hope you have cured him for ever of his inconsiderate itching for publishing new genera & species.

In your last no. of enumeration of Rocky Mountains plants, you remark that my Kanéan Pyrola chlorantha has been rightly suspected by Hooker to be P. grandiflora. With all due respect, I will say that unless P. picta of Smith is only a form of grandiflora, you are both mistaken. Kané's plant is exactly P. picta of Smith — I send it to you to prove the fact; But I will say at the same time that picta and grandiflora, I consider as very near each other — I see many variegated leaves in the latter; I must add ^{until} that, ~~to~~ very lately, I mistook grandiflora for chlorantha in my herbarium. I send you also what I now consider P. grandiflora, to ascertain whether I am right.

Your Gentiana Parryi I have in my herb. from the R. M^{ts}, Nuttall under the name of rupertii, Nutt.

— Now for a Confession and a little Discussion: —

About a year ago, M^r. J. Lea, the president of our Academy, received a letter from his particular friend, Mous. Des Moulins, President of the Linnean Society and agricultural Society of Bordeaux — asking him some information respecting the Vines and the Wines of this Country. M^r. Lea begged me to answer their queries — and I did so, with as many details as I could then obtain. I had both collections of Rafinesque and Leconte's monographs of the Amer. Vines, in which I found no reason to change your views and mine respecting our northern species — My letter to Mous. Desmoulins was read before the two above Societies and elicited a considerable interest among the Viti-coles of the Gironde.

so much so that I received half a dozen letters of further inquiries and even requests to send them some plants of our best cultivated varieties:

To one of my correspondents I sent 22 varieties of our best; but to avoid answering so many letters, I undertook to write a complete essay on the American Vines and Wines to be published in the journal of the Acclimatation Society, a publication of considerable circulation, which you may perhaps procure in Boston or Cambridge.

The occasion seemed very favorable, as I had received specimens from Dr. Linsecum of Texas, with notes on the trees of that country, and principally on the vines — and Buckley, in whom I had then great confidence, had just arrived with other specimens. To both, Linsecum and Buckley, I had previously written to procure me all possible information on the subject of the Texas Wines & Vines.

With all these materials, I wrote a new monograph with the addition of three new grape-vines of Texas — which formed the first part of my memoir. As I have not received any copy of the publication in the Journal of the Acclimatation Society, I send you herewith the rough draft of my paper, which, of course, has been somewhat altered in the copy sent over.

What Buckley wrote about his new vines was carelessly and inaccurately copied from my manuscript. I protested against his V. Mustangensis, maintaining that it was the Candicans of Engelman; but he said Engelman had given no description of it and he was entitled to precedence. I wrote, however, to Mr. Decaisne, to whom I had addressed my manuscript, begging him to correct and put V. Candicans, B., instead of V. Mustangensis; but he has neglected to do it.

My monograph was made with great care, after a close comparison and on the notes of Linsecum and verbal inquiries from Buckley. Vitis Caribaea, Nutt. from Arkansas is truly that of DeCandolle and quite different from the Candicans of Engelman. I have seen no

specimens from Florida: Vitis Candicans and Caribaea might be there.

V. Monticola of Buckley is quite different from rustica of Scheele. The latter is a small erect shrub, with short branches, racemes erect, narrow and almost simple; the other a spreading vine with large compound racemes and resembling more small forms of Cordata than any other species.

As to Buckley's V. Linsecumii, I believe it also to be a good species, ^{though} also resembling some forms of Labrusca; but the latter has small & simple racemes; the other has compound racemes. The fruit-bearing branches have strongly lobed leaves, which is not the case with Labrusca.

I will send you my specimens if you wish — although the best I have been sent to Mr. Desmoulins. My paper was published in the 11th of April, May and June. No copies have been sent to me, although Decaisne promised me to claim my share of author. It is with some trouble and quite lately that I have been able to read it — They have inverted the order of my chapters, and introduced several mistakes. This subject of vines and wines of N. America has become so interesting to vine-growers, at this time that the French vines are now or are affected by the disease Oidium every year; and when a serious competition in the commerce of wine is in prospect, that Mr. Desmoulins has thought proper to rewrite a memoir on the subject for the Acts of the Linnean Society of Bordeaux, upon the materials of my own memoir and other informations that I have furnished him in the course of our correspondence.

Very respectfully & cordially yours, in great hurry
(C. DeCandolle)

My homages respectfully to Madame,

I will add that my diagnosis for the vines is the racemes — if the leaves are changeable the racemes are not.

I had so many things to tell you, when I sat down to write, that I may have forgotten something.

Here is a note I find before me:

1st *Lonicera Dumosa* of Nuttall (California) in my herb. Corresponds pretty well with its name-sake of Gray's N. Wright. But the specimen is poor. With small flowers at top; narrow and elongated corolla; calyx tube hairy and clammy and very exerted stamina.

2^d *Fendleri Valeriana* No 296 is *pauciflora* rather than *Sylvatica*?

With compliments respectful to your lady

I remain very cordially yours.

E. Durand

hand

Phil. Nov. 13th 1862

My dear Dr. Gray,

I have mislaid your last letter; it is either in my room at the Academy, or in one of my coats' pockets; but I know what the intention was and I have aside for you all the *Astragales* of Nuttall, which I will dispatch immediately by Adams' Express. I will send with them the entire sets of the same genera from my herbarium, in which you will find the same plants of Nuttall and perhaps more. If the Academy specimen proves incomplete, Durand's may prove better, and vice versa. You may also find something queer in mine, or some correction to make, and if any little duplicate be desirable, you can help yourself and even replace, if convenient, by other little duplicate superfluous in your great herbarium. I have added the, also, ^{the} very perplexing genus *Hosackia*, which I beg you to look at.

My large flowered specimen of *Pyrola* you alluded to in your letter is not from Greenland, but, I believe, from the Pine Woods of N. Jersey. I sent it to you to ascertain whether it was your *grandiflora*. It is what I have long been in the habit to call *chlorantha*. I have seen only lately the memoir of Dr. Hooker on the distribution of arctic plants. It is a capital paper

Which has been of great use to me for adding on my general Catalogue the range of many species and placing under the same cover the synonymous species which he has united together. I have a great mind to submit to him the doubtful species of Kane's collection, especially those of Draba, Saxifraga, Salix and my variety of Ranunculus aquatilis which I think interesting, although a very poor specimen. If you approve of it, I shall do it and, with your permission, I shall use your name as an introduction to that great man.

I have your supplement of enumeration of R. M. plants; I feel highly indebted to you for it. It has enabled me to clear the obscurity hovering over the three species of Oenothera, albicaulis, pinnatifida and coronopifolia. The first I had separated from the others on account of its very long and linear capsule and I intended to write to you about it. The two others, I had under the same cover with the note "probably two species?" but I had not been able to see, in one, the expanded obcordate petals and, in the other, the hairy throat of the calyx, nor the character of the seeds. My specimens were too imperfect.

I am glad that Dr. Engelman has solved the difficulty. I possess all the forms designated by Dr. E. I will now clean up the Captisella and Mertensia.

I have been working very hard in recopying my general catalogue of all the N. Am. plants that have been published to this day. I had so many additions

and corrections in the old copy that it required a new operation. As I go along, I take genus after genus in my herbarium and pass it over with care, correcting and concentrating as I go. It is a greater work than you might think and 2 or 3 pages of the large commercial ledger form is all I can accomplish in ^(and I have about 460 pages to fill) one day's hard labor. When this is done, if the Almighty permits, I will re-label my herb. with synonyms & all.

When you have done with the plants I have sent to you, you will return them ^{all} together; but, I beseech you, do not do it without looking over (and noting) the polemoniaceae, solanaceae and other families which I sent you 2 or 3 months ago. I shall not want them before January. If you cannot enlighten me fully, do it at least to the extent of your present ability. There are two genera of a moderate extent of which I have not a single specimen, they are Drymaria & Pergandeia. Have you any spare specimens of only a species of each.

My means will not permit me, I am afraid, to buy a set of Perry & Hall's plants; but I would willingly pay a double price for those that were not in the last year's collection. I am making an effort to have our Academy to subscribe to a full set. If I succeed, as I give there all my duplicates, I may find others in return. I send you a small package which good old Mr. Gay gave my son for you; but, as you will see, my son had to break the seal to enter it.

Copy of Letter to M^r. Hall.

Phil. Febr. 9th 1863

Your favor of 26 ultior and box of plants addressed to the Phil. Academy have been duly received. I am sorry to say that the box has not arrived safe and sound. Far from it: constructed as it was of weak materials, scarcely thicker than an ordinary sugar-box, it has been broken on the way and patched up so as to arrive here in a miserable condition. Specimens have been dispersed out of their respective sheets and some may have been lost. I apprehend a great difficulty and, likely, the necessity of recurring to Prof. Gray's assistance to fix each specimen to its respective number, in as much as the numbers have been hastily marked with pencil and many of them scarcely legible on the coarse brown paper that has been used.

I have looked over them cursorily: the generality of specimens are good and in duplicate, but there are many single and rather insufficient. The numbers ought to have been affixed to their respective specimens so that to save that trouble to the purchaser. Upon the whole I regret to say that the merchantable operation has not been attended by you with the ordinary care that I have invariably found in the collections of Tandler, Lindheimer, Wright, Parry & others.

(follow apologia for the scolding.)

(Enter now) I think M^r. Hall might reduce the price or 2. cents

My Dear Doctor,

I have, I am afraid, a long letter to write: 1st Prof. Durieux wrote to me in extenso upon all the specimens of ^{the} N. American Isotria, I had sent him. Our Wilmington & Darby specimens he found to answer Brach's description of Engelmanni ^(Say, Durieux) admirablement caractérisée par ses spores reticulées-fovéolées, sa double ligule, &c Mais, (J'en reviens à mes moutons) If our Isotria is Engelmanni, the Engelmanni of Illinois, which I saw in your herbarium, is a different species and has ceased ^{for me} to be Engelmanni. The spores may be alike, ~~but~~ the other habits are different - the cells appeared to me much larger and of a different configuration - The base, the leaves, &c. are also different. A specimen from ^{the} Catskill's mountain, borrowed from the Academy's herb. was found by Durieux to be different from all the other specimens, but it was small and, as customary, too much pressed, and he dared not use the knife freely for fear of destroying it. To me this specimen appears to belong to the Illinois plant.

We expect the favor of your enumeration of Hall's Collection for our proceedings.

A specimen from Clinton Co! Pennsylvania
also belong to Engelmanni and I have no doubt
that the large fellow which Porter sent to you
is also the same. So a spec. from Rhode Island.

All the specimens of Delaware, Schuylk,
Raritan, interior of Penn. and, I believe, a
Massachusetts specimen, &c. belong to Riparian.

The New Hampshire specimens furnished
by your herbarium, were too young and too
much pressed to be properly analysed, but he
suspects them to be the European J. lacustris
and this point he desires very much to ascertain,
an extremely interesting in a Bot. geographical
point of view. Now, my dear Gray, you
have acquaintances in that American Switzerland,
Could you not write to them & furnish Durieux
with good specimens, collected in Aug^t or Sept^r
and not pressed too much, if at all.

Now to Hall's plants - I enclose copy
of the letter I have just written to him, by
which you will see that I have no reason to
be fully satisfied. We failed, at the last
meeting, Leidy & myself, to have them
purchased by the Academy, but we hope,
this evening

to succeed in raising a subscription and, at all
events, I will take them myself although \$1000 -
My rents have diminished ^{with these last times}
by the reduction of rent and ^{nothing from} Southern stocks.

As to the copy of New Genera, the Library
Committee have no funds disposable, we
will have to recur to a subscription, which
will be done when we have provided for the
purchase of Rocky Mt. plants.

I have just finished an awful job - It is
entering in my catalogue the genus Carex -
I have, with the Arctic & Transmissippian species,
221 species entered - Of these I have 134 species
and 21 varieties in my herbarium, revised
by Prof. Dewey.

Oh! my poor Eyes -!

Respects to your lady & believe me as ever
Yours

E. Durand

The addition of Parry's plant will, of course, be addressed
to me with the parcels of my plants you have in hands.
Hall's Plants, have been put up with so little care that
I will be permitted to verify them before payment.

Philadelphia Febr. 15th 1863

Dear Gray,

I received, this morning, your favor of Saturday. I regret bitterly that you have not been able to execute your intention to visit New-York and (surely not perhaps) Philadelphia, during your Winter vacation. I hope you will not fail, next summer, to pay me a visit, I want you to see my herbarium & the Catalogue I have been working since 6 or 8 months.

It was framed as an index to my 80 cartoons, ^{to} and find at once what I wanted to see, as well as to know, at a twinkling, what I had and what I had not. It looks so neat and so orderly that some of my friends of the Philosophical Society urge me to publish it in the transactions. It is a pretty extensive work, filling up, over 300 pages of a large commercial ledger of 48 lines to the page. Although, ^{undoubtedly} ~~probably~~, containing some errors or misplacements, it is, I think, upon the whole as accurate as any such work, ^{generally, we} still I have reasons for not publishing it.

Some time before my visit to Europe, Prof. Baird spoke to me about the great want of a general Catalogue of all the North Am. plants that had been published to this day. I recommended him. Thurber

& an agreement ^{was} made between them. Yet three years have elapsed and nothing has been seen of Thurber's Catalogue raisonné - no more than ^{of} his monograph of American Gramineae. What does this mean? Is it laziness or what else? Between us, I am quite uneasy about him. I have known him since he was an apprentice to the pharmaceutical business and always felt much regard for him; but really I begin to feel uneasy about his tardiness in accomplishing his tasks. This is one of my reasons for refusing to give ^{my catalogue} it to the Phil. Society - The other is the bother of correcting proofs sheets with my poor weak eyes, and, besides, I would not publish it without submitting it to you, nor without your full approbation. It is defective in one sense at least. I have simply given the names of authors, without mentioning the title of their works, but this might be repaired by introducing in way of preface all the works necessary to the study of ^{North} American plants. I have given the principal synonyms and localities.

Now let us go back to the Rocky M^t Collection. I have overlooked it carefully. There are some fine specimens and sometimes a superfluity of duplicates (in very rare instances) but more than one half ^{and perhaps} are represented by a single specimen at least

fifty are of the poorest sort. I do not believe ~~that~~ collection he has sent the Academy is ~~differs much~~ from ~~these~~ those he has sold \$6 a hundred, except in those instances where he has thrown in a superfluity of duplicates, which add very little to the interest of such a collection.

I had yesterday a letter from Englemann, asking me some specimens of Nuttall's species &c. He says among other things: You have no doubt subscribed to Nuttall's R. M^t Collection that is offered for the cheap price of \$6. per hundred. Though many specimens are rather poor, a great many are valuable and welcome to you - Some are new. Mr. Canby of Wilmington has also a set at \$6. It has been a great ^{a mistake} mistake to have two prices, affecting my case particularly as the collection received by the Academy has come through me.

So far, 40 Dollars, have been subscribed and you may draw upon me for the whole amount payable in green backs. There have not been as much displacement as I apprehended, perhaps, 20 or 25 - Those I cannot make out, I will send them to you. I engage to pay the balance, if the whole was not subscribed - (\$675).

Very cordially as ever your friend
Sorry to trouble you about this morning E. Durand

Philadelphia Febr. 20th 63

Dear Gray,

I shall not enter into competition with Thurber, for catalogue, be sure of it: I have too much regard for him and feel satisfied that his work will be more complete and accurate than mine, having had Dr. Torrey's library & herbarium at his disposal and the advice of both you & Torrey. Moreover, I consider Thurber's catalogue, in the way it is made, which he communicated to me, as the troublesome part of the New Flora of N. Am. which we all expect from you shortly. But if Thurber had not been going on with his job, my catalogue, with perhaps its imperfections, would have been better than none at all.

The subscription to Hall's collection seems to be at a dead stand (\$40). A new but unsuccessful appeal to the generosity of the Members was made, at the last meeting, by Dr. Leidy. The meeting was scanty on account of heavy rain. Thus to settle the matter at once (most unpleasant to me and to you) draw on me for \$45 and we will keep the collection we have now on hand. Should I have to add the \$5, from my own purse

to the five which I have already subscribed, it will not be paying too much the pleasure I will have in dispensing them into the body of the Academy's herbarium which has been my work and is almost ~~as~~ equally dear to me as my own. Does this answer you?

I regret that you have not forwarded your manuscript in time to have been presented at the last meeting. The next is the business meeting and, according to rules, ~~the~~ paper cannot be presented and accepted the same evening. Send it, notwithstanding, we will try to pass it through, as we did your paper on Mesclay's New Species. If we do not succeed, it will remain one month and then the gramineae will, I hope, be ready and the whole paper printed at once.

Very sincerely yours

E. Durand

C. Reopened. I

I have just seen Leidy who has informed me that 7 Dollars more had been subscribed - This changes my ideas - Send all you can of Parry's plants to make up \$56. and add to the package what you have of my own plants, enveloped separately with my name on - address the whole to the Academy

11 I have years ago given to Prof. Gray careful description of the localities of both Isoetes, but nobody seems to have gathered them. I will repeat to you the data, perhaps you may find somebody who will make the tour of the White and Franconia mts in the fall, who would devote half an hour to the trouble to gather this subaquatic - for I. lacustris grows quite under the surface, not like the others, halting the water ¹/₂, a Echo-Lake is in the Franconia Mountains near the well known Prospect-House (near which is also Prospect-Lake which undoubtedly contains the same plant) opposite the perpendicular cliff which forms the Echo, is a little wooden Wharff, and to the left of this, 15 to 30 steps from it, I found the plant in the lake bottom, whence it might be gathered with a rake. 11

It will be good to give the above description to Mr W. Booth who, do you say in a preceding letter) intends, next summer, to hunt for the N. Hampshire Isoetes.

Yours. E. D.

I do not know whether the Academy has received the first H^o of this publication, as for me I have not.

Adden! My dear Gray, Believe me your much indebted and warm friend.

E. Durand

Philadelphia March 2^d 1863

Dear Gray,


I received, day before yesterday, your invoice of plants, manuscript, &c. The latter will be presented tomorrow to the Academy and reported upon at the last meeting of the month to be printed immediately. Your instructions about types will be attended to and, if you wish, I will correct the first proof and send you the next for revision.

I am much indebted to you for your rare genera. If you will think of me in the summer and dry some more specimens from your garden of the other genera wanting in my collection, you will accomplish a very meritorious act toward the Science, as my herbarium (which is still far off, I hope) will go after my death (which is not far off) to some Scientific institution.

Mr. Hall has responded to my scolding with a most obliging note, sending me all the specimens of the Illinois Isoetes which he had on hand. This plant grows in his own meadow in two different forms: A small one, covered with water in the spring, but left dry later; and a larger one growing in deep water. These are the true I. Engelmannii - and no mistake! As to our Wilmington plant, it may be in part (as to micro & macro spores) similar to the Illinois plant; but in every thing

else, it differs entirely from it.

I believe I have made another discovery? That is that the Newport (R.I.) *Isoetes* is no other than the Florida *I. flaccida* of Shuttlesworth. What do you say to that? Why would not the aquatics follow the example of several other plants eminently southern, which pay us, Northerners, a visit along the coast?

All the specimens of this Newport *Isoetes* that I have seen (6 or 8) have a very small stock  with long slender leaves and cells smaller than our Wilmington *Isoetes* — The microscopical investigation I leave to better eyes than mine.

I had specimens of that plant from Barber, some 15 or 20 years ago, and Prof. Bridges gathered the same at Newport, 2 or 3 summers ago. Shall I ask him a description of the locality, and send it to you? perhaps yourself or some of your friends visit that summer retreat in the warm months.

I sent to Durieux specimens of an aquatic plant which I found in the Academy herbarium, labelled *Isoetes*, Florida. It appeared to me ^avery queer *Isoetes* as it had no tubers, but simply a stem starting from a blunt base furnished with capillary roots. It had no spines whatever, nothing but the leaves. Durieux wrote to me that it was a *Cyperaceae*, most likely,

of *Isolepis*, he thought as he had found seeds ^{attached to those long leaves,} 2-3 feet long. I have a plant in my herbarium labelled *Scirpus*, Charleston S.C. B.D. Green, which might be the same plant; the culm is just 2 1/2 feet long with ^(and leaves shorter and in threes at the top) a terminal spike. It was mixed with the *Scirpus subterminalis* in my herb. but it might be *Eleocharis elongata* of Chapman — I am not able to make the difference, I never paid attention to this order.

I have looked over the plants of Perry — They will fairly supplement the 25 wanting in Hall's lot and the poor specimens. The package for me is also in good condition. I am ready at any time for your draft with many thanks. I wrote to Canby that I had a package for him. He is in Philadelphia almost every Tuesday at the meeting of the Academy, weather permitting. I have received your copies of *Planta Wrightiana e Cuba Orientali*, the copy destined to the Acad. will be presented to-morrow. I thank you for that you present to me; but I will tell you frankly that I am ready to return it to you. You may dispose of it to more worthy friends than my self of such a present. I am exclusively interested in N. American plants and my eyes are so bad that I devote them exclusively to this study of our own plants.

Phil. May 1st 1863

Dear Doctor

I have just received a note from E. Hall, requesting me to secure for him, at least, fifty copies of your enumeration of his R. V. plants. Are those 50 copies to be additional to your 200, or are they to be included in the latter number? I have seen the printer a few hours ago - He pretends that you ordered only 175 copies and has this number of the two first sheets aside for you, to which he could add ten more of a supplementary number always printed over the number required for the Academy. Should you insist on having 200 or 250 copies, he will reprint, without cost, the 2 first pages of which the form may be broken, so as to satisfy you as to number. You know that the Academy allows the author twenty copies. My short paper ^(Dr. Hager's) on the collection of Arctic plants follows immediately yours, shall I send you a few copies for such of your correspondents as may be interested on the subject - I will send you the revise, that you may judge if it is worthy to be sent abroad.

You say in your note dated 25th that you cannot resist gently rapping Deacon Lewis over the knuckles, Do it gently I pray you, in consideration of me and of his great friend Mr Isaac Lea. I wrote to him, reproaching gently his indiscretion and controverting several of his views. He is old - Have mercy for him.

Our Buckley has been here to receive the last breath of his wife - a most accomplished young lady and almost a child of mine. The courtship had gone on without my knowledge, and even with diffidence that I would be, in any way, informed of it. The fool - I would almost say the brave, but I prefer saying the imbecile, married her without reflecting whether he was able to support her - He had nothing but debts and she has supported him from her little pecuniary means and the pawning of her jewels and dresses. Her health was bad, her mind rather deranged and, after every sort of miseries mental and physical, she has returned to her grand mother and friends to die among them. She had procured him of late an office in the convalescent hospital at Agawam Creek. He was very much attached to her and had, otherwise,

every kind of attentions for her. She never expressed a word of complaint against him. Buckley is not a bad man, but he is weak-minded, vain and a true child without judgment nor common sense.

Ever yours

E. Durand

to get next year, if I live. and with

Hoping that your wish will insure
the entire recovery of Mr. Gray and
of the continued good health of your self
I remain, Sincerely yours

C. Durand

I have paid a particular attention
to our three Northern Vines. I have
nothing to add to, or extract from what

I have said about them. I have

not been able to find out much more

about them. I have been

very much interested in them

and have been

very much interested in them

and have been

very much interested in them

and have been

Phit. Sept. 15th 1863.

Dear Gray,

A long absence from home (2 months) has
prevented me to acknowledge the receipt, by Mr.
James, of your last letter accompanying the
report on the Disbush, Hooker & Benthams genera.
The letter has been retained by the Academy
and will pay your printer's bill. I am
very anxious to hear of Mr. Gray's health
which Mr. James told me was much improved.
When she left Cambridge

I had a good deal of hard travelling over
the Eastern Alleghenies with good results in
botanical collections. Nothing new, however,
except localities and 4 or five species not yet
found in Pennsylvania. I have given Porter
a list of them for his intended catalogue.

My second voyage has been to Western N. York.
My principal object was the Cat. N. Y. in
search of an Isoetes, the unique specimen of
which, in the Academy's herbarium, I had sent
to our Isoetes man, Frenchman, who strongly
suspect it to be a new species, with reticulate spores
not larger than in any other species, but they are
not fully satisfied about it as being a borrow

ed

specimen, the I dare not damage it by repeated lacerations. Unfortunately for them, both on going and returning, the catkik was shut to us. A messenger from the hotel, announced that it was over crowded and could not accommodate any more. So we pushed on to Niagara which I had not yet visited, and, hence, to Trenton falls, full of hopes that the crowd had diminished and we could reach Catskill without difficulty. I will give you herewith a list of the most interesting plants we met in Niagara & Trenton Falls. Only for locality sake. Almost all were known to me at first sight, but many I had never seen in the living state. I was disappointed. These excursions were made with an old friend of mine, retired from business, on a splendid estate half a mile from Bethlehem. When he bought that property, I urged him to study botany as a preventive of Emm. He has followed my advice and is now an enthusiastic and expert botanist, satisfied that time will never be heavy on him. I have spent one month at Bethlehem, exploring with him the country around and adding numerous new plants to the already rich herbarium of Monsieur T. St.

Now, my dear Gray, let us return once more to the microscopical Chapter. I received yesterday from E. Hall a provision of them for our Society made for me, about 30 in all, all beautiful. I have laid aside two for each of Dr. Gray, Torrey, Eaton, Porter, Academy, Self, and 3 or 4 more for distribution. The rest, about 15, I will send to Gay & Durieux, for themselves and correspondents. Mr. Gay has baptised this with the name of I. engelmannii. He was doubtless for a time whether it would not prove to be that which Englemann had once named microspora? but Dr. E. has relieved him of that fear. As for me, I am confident that this Hall's Isoetes is the same I have seen in your herbarium, labelled I. Engelmannii. With these Illinois plants, I will send them some I. riparia, from Livers Delaware and Lehigh - 3 spec. of I. Engelmannii from Lancaster County, Porter - and if any of your botanists, Messrs. Boott? Tuckerman &c. have collected in Maine, N. Hampshire, Vermont, any of the desired Isoetes, you might send them to me to be added to my package, large enough, ^{by} from other things, to be sent by express. I hope this will be the last Isoetes with Isoetes - Except that of Catskill note which I shall try

Friday Sept. 25th

Dear Gray,

You ask a prompt answer to your kind offer to use your influence to procure to our Academy the splendid herbarium of the late Dr. Short - Here it is:

Be sure that it will be accepted with our warm thanks to you; suitable shelves constructed for it, between the general & N. American herbaria and all possible attention ^{paid} to its preservation in good order, ad usum Studentium.

I now speak only in the name of Dr. Leidy and my own. Next Tuesday the proposition will be made by us, at the business meeting of the Academy and, undoubtedly, cheerfully accepted, as I say above - With many thanks to you.

Botany has never been better cultivated than it is now by the Members of the Philad. Academy of Nat. Sciences.

Ever yours E. Durand

Trenton Falls

Streptopus amplexifolius! in fruit

Cardiophyllum! in fruit

Coptis! in fruit

Acer spicata & *Pennsylvanicum*! in fruit

Osmorhiza brevistylis! in fruit

etc. etc.

Astragalus

Niagara

Polymnia Canadensis! in fruit

Sisya integrifolia! in fruit

Campomanthe Americana! in fruit

Euphorbia platyphylla! in fruit

Helioscopia? I might say!

Juniperus communis!

Astragalus Canadensis! in fruit

A. Cooperi! of which I find a bit - no flower nor fruit

Monarda Clinopodia, Willd. distinct enough from *biota*, of which it might at least be made a variety. It is scarcely fatalous.

Shepherdia Canadensis! extremely common

Symphoricarpos racemosus? small form

Helenium --- perhaps a form of *autumnale* with long narrow lanceolate leaves, apparently different, a single spec. which I find you

Arctostaphylos uva-ursi! Whirlpool

Liatris cylindracea! do

Asper Novae-angliae! do

Echinopspermum lappula! do

Oldenlandia purpurea, var. *Ciliolata*! do

Smilacina stellata! do

Comandra umbellata! common

Galium boreale! Goat Island

Cirsium discolor? " "

arvense! a pest

Geranium robertianum!

Clintonia borealis! in fruit

Thaspium barbinode in fruit

Lonicera grata? in fruit

Hypericum Kalmianum in fruit

Lobelia Kalmianae or *Nuttallii*, rather the first

Aster ptarmicoides — Whirlpool

Lithospermum in fruit — hirtum or canescens

Thysa occidentalis!

Taxus baccata var. am.

Ribes cereum, very common on Great Island

Apocynum androsaemifolium! in fruit

Geum macrophyllum?

Goodyera repens?

& others common to the N. States

Trenton Falls

Corylus rostrata!

Actaea spicata — alba et rubra!

Campanula rotundifolia

Acer spicatum!

Alnus farinosa!

Galeopsis tetrahit! Which I found also in the Allegheny, on the Tobikame river.

Cystopteris fragilis! Only one plant

bulbifera! Very common

Allosurus gracilis!! Both found

Aspidium Goldianum!

marginale!

spinulosum!

Var. *dilatatum*

noveboracense!

Equisetum hyemale

Variegatum!

Quattaria bartramia!

Smilacina racemosa, *stellata*, 3 fol. & 2 fol.

Proserpinaca angustifolia!

Trillium ciliatum!

Hepatica acutiloba!

Trillium grandiflorum

erectum!

Geum macrophyllum or *strictum*?

Same conifers as at Niagara

Phil. Oct. 31st 1863.

Prof. Asa Gray, Cambridge.

How do you do, my very laborious friend?
How do the puzzling *Astragal* do? As for me, I do
not do at all, I feel extremely fatigued, just returning
on foot from a new Isoetes-locality, 4 miles from Camden
on the Atlantic City R.R. These Isoetes are the largest
fellows at the root that I have seen - $1\frac{1}{4}$ inch diameter.
They may be the same as our Pennsylvania & Delaware
friends, but the leaves are shorter, stouter and more
abundant - the base wider than long. As to the spores,
I can say nothing about, my eyes and glass do not per-
mit it. I sent a specimen, 2 weeks ago, to Durieux -
which specimen had been given to me by Prof. Leidy,
the discoverer of this new locality. I have some aside
for you. Those that were in deep water, had their
leaves spread flat on the ground, forming a beautiful
rosette from 8-10 inches in diameter. Those in shal-
low water, were almost erect and in a flatter.

You will see in the Proceedings of our Reading for Oct.
that I have denounced the humbug Am. Tea Company,
who announce to the public that they have discovered
in the mountains of Pennsylvania the true Thien
Chooensis, growing indigenously, luxuriantly and abund-
antly. Whilst we, poor blind botanists, have never
seen it. By steeping their tea in boiling water, spreading
and pasting the fragments upon paper and drying the

same with genuine China tea, I have proved that they were different from each other and their trashy American tea was nothing more than the old revolutionary Jersey tea.

Good Mr. Canby has brought me my share of his Eastern Shore of Maryland Collection. I have recognized at once the calmus maritima, Muhl. - which Dr. Pickering collected in the same district, some 25 years ago, and of which I had only a small branch of 5 leaves, without flower nor fruit. I showed him also the figure of the same in Nuttall's Sylva, made upon the unique specimen now in the general herb. of the Academy. As to his Desmodium ochroleucum, Curtis, I resorted to my herb. and the Acad. Herbarium to see if I could not find the like. Nothing in mine; but in that of the Academy I found, under the label of D. humifusum, 3 different specimens:

1st. Desmodium humifusum, Muhl.? N. England; in Dr. Bigelow's writing, I believe - With query and answer Yes! 3. (Meaning Zachary Collins). But it has no long stipules, ^{appears to be erect} and looks more like an glabrous specimen Viridiflorum.

2^d. Evidently decumbent - Leaves very much like those of Canby's specimens - ^{of Dr. Pickering, I believe.} Marked Salem. Hand writing.

3^d. A specimen of Nuttall (unlabeled or all his specimens) without flowers nor legends, scarcely more than a few top leaves, but also evidently decumbent, marked at first heris, arum rotundifolium, although the leaves

are not rounded - Then D. Greenii, Massachusetts. Stem bipid and the few upper leaves remaining, also like those of Canby's Spec. No 2 & 3 have conspicuous broad stipules. I would not be astonished if D. humifusum & D. ochroleucum should prove to be the same.

But a ^{more} important discovery: In the Acad. Herb. was a specimen labelled, if I recollect right, by Dr. Torrey D. Scaberrimum, Ell. Alabama. Beautiful specimens with the inferior stem-leaves simple - Evidently the D. Floridanum of Chapman! Who refers the Scaberrimum of Elliott to D. Canescens, DC.

The Scirpus of Canby is most likely a new species - nothing like it in our Philadelphia herbarium and it is a curious one.

The Treasurer for the special fund for the purchase of new books having been absent for some months, I have not been paid as yet for the new genera; nor have I paid the bill of the printer, but it is all right and in the course of next week all will be settled.

Have you an answer from Dr. Short's heirs? I fear that our Curators have been too much hurried. They have already disposed Shelves &c. for that herbarium. Considering it as already acquired.

Yours very cordially with respects to your lady

E. Durand
I think you are wrong in your manual today that D. humifusum resembles D. rotundifolium

Philadelphia, Nov. 27th 1863.

Prof. Asa Gray, Cambridge.

My dear Doctor,

I return you the good letter of Mr. W. Short; It was communicated, last Tuesday, to the Academy and received with expressions of gratitude to the Family and to yourself. I might have returned it sooner, had I not been so busy upon the arrangement of several genera in my herbarium. Had I been present at the last meeting, I would have found the letter of Mr. W. Short, which had been addressed to me there. His letter is a confirmation that the family place at the disposal of the Academy all the herbarium and packages of plants left by their deceased parent. We are taking steps for having it forwarded to us with as little trouble to the family as possible.

When I have finished the present operation of cleaning, relabelling, &c. my herbarium, I will begin another, that of putting aside

Specimens of Nuttall's plants not noticed in
your publications and others from Collins'
herbarium and also from LeConte's &
J. Read herbaria, which you may not have
had the chance to see. I believe I may add 50
species to Chapman's flora.

I will do the same with the herbarium
of the Academy and with that of Dr. Short,
when we have it. I intend to lay aside
for your inspection every specimen
that to me will appear new or doubtful.

With respects to your Lady and wishes
for the complete restoration of her health
I remain your devoted friend &c

E. Durand

I shall have your labors
upon Astragalus for our proceedings.

By any means, my dear Gray, send
any thing you like to publish in the Proceedings
of our Academy. We will be happy and proud
to have your name among those of the contributors.
I have no doubt that I may raise a subscription
among the ~~Academy~~ for a suite of Mr. Hall's
plants - If not I will take it myself, although
in great distress from ~~financial~~ financial embarras-
sment and loss of stock interest.

Mr. Canby, who has heard from a friend
who has seen them, that those plants were beautiful
has ordered a set for which he pays only \$6.00
a hundred. I hope we shall not pay more.

As to the copy of New genera plantarum by
Benthams & Hooker, I can say nothing now about
the possibility of a purchase by the Academy.
I have not been able so far to see the Committee
of the Library - As for me decidedly I am too
poor now. But what is this New genera
Plantarum? Is it a continuation of Decandole,
something like Walpater? Or an illustrated
genera like yours? Is it ~~an~~ of general botany

in which there are only a small number of flowers
can germinate? At all event, from two such botanists,
it must be something very good.

This is all I have to say - for, indeed, I am
afraid to be a very troublesome correspondent
to one so busy as you are -

Sincerely yours
E. Durand

I have not ~~received your last publication~~.

One word more here is a specimen of
what I considered ^{25 years ago} notamogeton densum.

I have abundance of it in my herbarium -

It is certainly North American, but I could
not say positively where I found it - it is marked
only Pennsylvania. I do not recollect to have

collected water plants anywhere else but in
the River Schuylkill when some 20 or 25 years ago

My family used to spend the summer at ~~the estate~~
here - or in the ditches of the low ground along
the Schuylkill & Delaware - I am strongly impres-

-sed that I found it about the Phil. Alum house
a small distance from the bridge on the right bank
of the Schuylkill. I paid little attention to it

at the time, because I thought it was common -

I will request our young botanists to look for
it next year.

Brach! it is an anacharis - the stem is not
articulated - but the leaves are so wide - and my
poor eyes cannot see any flowers nor fruits.
It looks however very much like the P. densum
which is so common in Europe and I recollect well.
I immersed it in water and I saw it still wet.

Now, Dear Gray, you have a warning!
Do not abuse your eyes any longer — not only
your eyes, but your brain. You are young
in years, in health and vigor, although old
in knowledge, reputation and honors.
Why should you work so hard, you have
X nothing to gain by it. Therefore do your
work gently, leisurely and do not expedite
in one week what others, more reasonable,
in your place would do in one or two months.

If your eyes have been your strongest organs,
mine have been my weakest sense, and
I have a great experience with weak, fatigued
and sore eyes — which I will communicate to you.

The great and surest remedies are rest,
light and air. — avoid applications of
collyria &c. I repeat: for inflammation of
the eyes light and air are the most effica-
cious remedies.

Now let me say good night to you —
take more care of your eyes and health and
receive, before hand, my best Christmas wishes,

Yours sincerely,

E. D. Derand

My respects and best wishes to Madame.

Phil. Dec. 14th 1863.

Mon cher Gray,

I waited for the arrival of the package
of Astragali, Hosackiae, &c. to acknowledge
it, and answer your letter of 1st & 10th inst.
all right and safe! but I regret that you took
upon yourself the expense of transportation. I do
not like that. It is not altogether for your
gratification, but for mine especially, that I
submitted to you my plants and you ought not
to incur any expense for this selfish act of
mine. I will get used, if it happens again.
Is that a scolding?

Your monograph of Hosackiae will be
presented tomorrow to the Academy. I see with
pride that both H. Heermannii & Lathyroides
have been retained. They do not belong to Durand
alone, but to D. & Holzner. I have made the
connection on your list.

I have been suffering for the 2 weeks with
the worst cold in the head, I ever had. I could
scarcely eat or drink for want of breath.

I feel rather better today. But it has not pre-
vented me from working hard at cleaning,

relabelling and securing specimens with bands of paper, &c. I have corrected mistakes and added, en passant many notes and remarks which I will, hereafter, submit to you. I have also found some new things, I believe, and recovered several doubted species that have not been found since their first discovery.

I will mention here a few that I recollect.

V. album, ^{ph}
1st *Vaccinium elevatum*, ~~Benth~~ Sol. a well characterized specimen from Savannah, which I found mixed with *V. Stamineum*. In another sheet I found a specimen of Nuttall, labelled *V. elevatum*, which is nothing more than *C. Stam.* with white flower. I believe I have also recovered the *Pinguicula acutifolia* of Michaux, in Labrador specimens marked by Le Conte, *P. vulgaris*. Michaux saw only the seeds, I have the flower, which has a blunt spur quite different from vulgar. I can say with almost certainty that *Physotegia imbricata*, Benth? *P. pers. flora*, Nutt. is nothing more than *Brasoria truncata*, &c. &c.

On looking over your and other botanical publications to have them bound together, I could not find your monograph of genus *Pentstemon*. Could you procure me another copy?

I presented, at the last meeting of the Academy two beautiful cones of *Pinus excelsa*, from

the farm of my friend Auguste Fiot, near Bethlehem. This fine tree is very common in our nursery gardens, but none has as yet given fruits - as you observe in Manual. However, my friend, in a visit to Mr. Landreth had the pleasure to show him to small cones on one of his trees. Mr. F. has two trees of *P. excelsa* - One had 39 cones from 6 to 11 inch long. I have two aside for you. The other tree although more vigorous has ^{so far} given no fruit. The fruiting of Mr. F. Pine may be owing to the mountain air of the locality. He is 2 or 300 feet higher than the Schuylkill.

It is customary with the Amer. Philosophical Society to have an obituary notice of the deceased member, prepared and read before the Society. This, I believe, has not been done for Dr. Short - and upon inquiry and a negative answer, I intended to propose the reading of your able notice, printed in the May No. of the Am. J. of Science. I have, however, been prevented from doing it by your announcement ^{and} that Dr. Short's herb. "Was offered, by a wise bequest, to the custody of the Smithsonian Institution." Not being able to explain the liberal transfer made to the Philadelphia Academy, I have postponed the reading of your notice.

I have turned over the sheets of the Journal
of the Academy of St Francis and seen
the poor figures of M^r Kellogg's new-species,
many of which look like old acquaintances.
is not that Kellogg another Buckley, and
worse a humbug?

I feel a fever of impatience to look at the
plants you have sent - with their true names, the

Phil. Dec. 24th 1863

It is high time to close my letter and forgive
the poor remarks of an almost blind botanist.
I will not touch my astingale before I have
your Synopsis and I thank you for that of
genus Pentstemon which you have been good
enough to send me. If I find the first copy
I received from you, I will return you the
last. Your Synopsis of Horadice will soon be
in the hands of the printer - Shall I send you
100 or 750 copies with the 20 allowed to the
author? I will certainly incorporate in
Short's herbarium the plants of Hall & Harbome.
I have nothing to reply to your generous
remarks that you will fulfill your duty
to science, but be prudent and reasonable;
You have done enough already to be placed
in the first ranks of ^{the} highly useful scientific
men, of the DeCandolle, Hooker, Bentham,
&c. Now good night! It is too late for
this evening mail and the weather is intensely
cold - I go to bed - good night again
and believe me sincerely yours

E. Durand

I have two cones of Pinus excelsa for you
I will send them to you through our friend James
Respects a Madrasen

Dear Gray,

A happy Christmas & New Year to yourself and Lady!
You shall have my photograph in a few days,
if you want it, and I will receive yours with the
greatest pleasure. It will be for you a poor
exchange - a sovereign against a dime.

I presented, last Friday, to the Philo. Society
a copy of your obituary notice, ^{of Dr. Short} and read it &
explain^{ed} how the herbarium of Dr. Short came
to the Acad. of Sciences, instead of going to the Smiths.
Institution. Then I offered two resolutions;
The first that your able notice be reprinted in our
proceedings, if allowed by the regulations, the second,
that a Member be appointed to write an obituary
notice of Dr. Short. The former was not admitted
the second was agreed to and Prof. Gray appointed.
Prof. Gray has long been a Colleague of Dr. Short
in both Schools of Lexington & Louisville and was
his intimate friend - He has accepted the task and
I presented him the other copy of your notice.

I hurry the word I had before me at home,
to be entirely disengaged when Short's herbarium
arrives. What a pleasure I anticipate in perusing
this fine collection, which we have not received
- as yet.

Going along in my operation of overhauling my herbarium, I have taken the following notes:

The plant labelled by Dr. Torrey, (in Whipple's plants) Mimulus dentatus, Nutt. a narrow leaved variety, has not the least affinity with the plant of Nuttall, which I have! - Dr. Torrey's plant is my M. Prattenii described in Pl. Prattenianae (Four Ac. of N. S., June 1855) upon miserable bits, presenting very imperfect specimens, & not the rosulate radical leaves which are sparsely ^{scab} dentate and attenuated at the base into a wide petiole. Had Dr. T. seen the plant of Nuttall, he would not have made his plant a var. of it (Ceci entre nous!)

Among the plants of Hall & Harbourn, I found a specimen not noticed by you and perhaps as new Pentstemon. He I send you the top of it. The rest, at your service, is composed of 3 internodes about 3 inches in length each, ^{amplexicaule glabrous pubescent} bearing in the axils of the leaves (which are broken nearly to the stem) two fascicles of flowers on stout peduncles about 1/2 inch long - sepals lanceolate and ciliate; Corolla bilabiate, throat ^{slightly} bearded, &c.

I find in my herbarium 4 different forms of pretended erichium glomeratum, some of which appear to ~~have~~ be distinct from the others.

1st Nicot's n^o 374, of which a specimen of Howard from the Colorado Rocky Mts. seems to be

a variety with fascicles of flowers on long peduncles instead of being subsessile. Then comes the magnificent plant of Dr. Parry n^o 288 with its elongated racemes, furnished with leafy bracts 2-3 inches long, and lastly the beautiful little plant n^o 630 of Fendler's collection (The Dasymploche farinosa? of Nutt. which seems to answer partly the description of E. fulvum of Dr. I say that there are here 3 very distinct species so far as the faces of these plants go. Nicot's spec. is the echinospermum hispidissimum ^{Nutt in} of Head herb. and I believe E. glomeratum, ~~of~~ var. hispidissimum of Torrey. Look at these, I pray you.

Have you remarked in Lindheimer's specimens n^o 469 & 470, especially in the latter, that the base of the calyx is provided with appendages which do not exist in the narrow leaved forms of the specimens of Ch. Wright, Buckley &c. The plant I allude to is the Convolvulus Hermanniae.

A very tomentose specimen from Buckley upon which you have noted "probably nothing more than a form of Hermanniae" has also appendages at the base of the calyx. It answers pretty well to the description of Convolvulus incanus, Vahl. But I think with you that they are all forms of C. Hermanniae. I am glad that you kept my Polemoniaceae; it gives me the hope that you will revise before long the obscure genera Phlox and Gilia & Navaretia.

Prof. A. Gray, Cambridge.

My Dear Sir,

By request of our friend M^r Porter, I send you specimens of Cypripedium Virginica of Nuttall, not labelled by himself, but by Dr. Pickering, which is exactly the same. It is really a Cypripedium, but nothing else but the C. Schoenoides of Europe, as I have ascertained it from numerous specimens in Menzies's and the herb. of the Academy of Sciences.

As I did mention to you in previous letter, I began a general catalogue of the Amer. plants; I finished the Thymus - calacroe, which filled up 13 pages large foolscap. I was arrested at that point by a very severe inflammation of the eyes, which kept me 8 or 10 days in my room, without being able to do anything. I had, mean-while, ample opportunity to reflect upon the task I had undertaken and the enormous length of it, which would inevitably terminate in the non-acceptance of my work for publication in the Memoirs of the Academy, or those of the Philosophical Society. I therefore changed my plans and, desiring to do something useful to the science, (I who had done nothing as yet) I planned and executed that of publishing a catalogue of the Amer. plants.

had been described since the publication of Torr. & Gr. Fl. N.
and as far as that work goes. Had I been able to accomplish
it, a student of the Botany of North America, would have
had the chance, with Dr. Torrey, Thurber & Eaton's forthcoming
publications, to occupy himself, without being obliged to be
surrounded with some 25 or 30 different publications of
difficult access. Through the liberality of Dr. Wilson, I had
obtained new works such, especially, as Wislizenus's, and
recovered from my first attack of inflammation of
the eyes, I went to work again in good earnest —
But lo! after 3 or 4 days, I relapsed again, and
found myself in the necessity of giving up all my plans
of usefulness. It is an awful thing, really, to be old
and infirm, but I can't help it — I must resign myself
to the fortuities, so awfully deplorable ones.

At the present moment, after a long letter to Mr.
Porter and the reading of my newspaper, my eyes
are in a dreadful state and I am obliged to shorten
my letter to this dimension; otherwise, I would take
the liberty of sending you a few remarks on the last
edition of the recess, but for another time!

I have perused your charming little work: How Plants
grow! It is an admirable resume of the Science of
Botany, simplified to its most condensed and best expression.
Any one could become a good Botanist with this little
work. With respects to your lady who, Mr. Buckley tells me,
has been good enough to inquire about me, I am in,
my dear Sir, your nearly blind friend and devoted
servant E. Durand

Excuse my scribbling & bad English.

Please let me know in your next whether
I am right in the two Velfa I send you herewith.

Dear Doctor,

Mr Buckley left his plants for me at the Academy with a request that I would send them to you. I liked to see them before and I had to rearrange them as they were clumsily distributed in papers of different size.

I have found the following wanting: *Sidalcea Alacosa*

Linum San-Sabeanum

all the Vines, but I send them

Mimosa calcarea

Oenothera lumbisana

Saxifraga Texana

Sericocarpus Woodhousei

Actinella lanuginosa

This is as far as I can go, not having received the rest of his publications. Decidedly ~~he~~ is mad with me. His new Gramineae were not furnished. It is just now only that James has brought me the Mosses & Lichens of Dr Hager. I shall send them another time. Among the absent in the Arctic plants I send you, is a *Luzula* ^wroughly named *L. melanocarpa*? It is a mistake! It is rather the *Hyperborea* of R. Brown. The leaves are flat & wide, the flowers in umbellate heads, but scarcely developed, with very acute sepals of a dark brown. There is but one specimen in the parcel I prepared for Hager.

I wrote yesterday to Mr Ch. Sprague to get some information on the *Erysiphe necatrix*, for Mr Desmoulins, pres. of the Lim. Soc. of Bordeaux. I bid Mr Sprague to communicate my letter to you in order to have additional remarks on the subject. If you have any to make

Very sincerely yours

E. Durand

Thursday evening

the old spot and uprooted several plants. He found in fact two different roots, one sent to me was the false simile of that form I had seen in your herbar. What was remarkable, however, is that the leaves, instead of resting ^{& around} on a cylindrical stump (root) as is the case with the ordinary *Weldinglow* plants were seated on the crown (collet) of a tuber. Is it so with your specimen? Is not also *Isotria* a dioecious Cryptogam?

Another riddle! Last Sept. Prof. Leidy brought me a specimen of *Isotria*, found in a ditch some 4 miles out of Camden N. Jersey. I started next day to find the locality, which I only found at my 4th voyage. The water was very limpid and not very deep, scarcely over 8 inches in the deepest part. All the bottom was literally strewn (*lapisé*) with *Isotria*, not with erect leaves, as the *Wilmington* & other species, but with leaves laying flat on the mud in a rosette form - It was a beautiful sight! With those in shallow water, the leaves were partly erect, but dishvelled, not forming straight bunches. I pulled out a certain number, just by forcing my hand through the soft mud and lifting up the whole plant. These also, were sent to Durica with the expectation that they might prove a new species. The roots were round - The leaves short,

Phil. Jan. 14th 1864.

Dear Gray,

I received yesterday the revision of genus *Streptanthus* ~~thus~~ and the first part of *Astragalus* for both of which I feel highly indebted to you; I shall expect the rest with anxiety. Of the 65 species of *Astragalus* described, I find 39 new 44, besides varieties. It has been a considerable labor to you and I cannot but admire your facility, ability, perseverance & enthusiasm for the amiable science.

I thought the flat marginated seed was a good specific character for *Streptanthus*.

At page 187 - *Streptanthus Virgatus*, Nutt - you say: "Although not extant in any of our herbaria, I may rather confidently refer it to *Arabis retrofracta*". I have in my herbarium a plant of Nuttall, labelled *Arabis Virgata*, which so far I regarded as Nuttall's *Strept. Virgatus*. It is neither a *Streptanthus* nor an *arabis*, judging from the seed, which is oblong and in double rows in a strictly erect ^{& the angled} silicle, about $1\frac{1}{2}$ inch long. The seeds resemble those of *Pachypodium laciniatum*. The plant is small with a long ferniform root; a tuft of radical leaves, ^{villous} hoary-tomentose, cauline leaves short, narrow lanceolate strictly sessile and amplexicaule

The stem is composed of two divergent branches, forked from the root and about 5-6 inches high—scarcely any flowers at the top, and very small. Its appearance it looks somewhat like *St. Canescens*, but if it is *Streptanthus virgatus*, Nutt. it has no affinity whatever with Spalding's plant, *Arabis refracta*, Graham, *Cum fl. intense purpureis*.

Your monograph of genus *Horackia* will soon be published; it is in the hands of the printer.

You think perhaps that the Academy is now in possession of Dr. Short's herbarium. We have not heard from the family ever since the letter received from the son, by which he was announcing to me the actual donation of his father's botanical treasure to the Academy of Nat. Sciences—by his whole family. Upon the reading of that letter a vote of thanks to the family was passed and transmitted by the Secretary. I wrote to the son requesting him in behalf of the Academy to employ a carpenter and a proper person to pack up the whole and deliver to Adams' express with bill of expenses which would be reimbursed paid by the ~~the~~ Express and transmitted to us. Not a word have we heard from Louisville, since. What is to be done?

Our Isoetes-mad french friends are preparing for me a place in a mad-house. As you will see by what follows, *Isoetes Engelmanni* is a true *Pleurozium* that changes its forms at will and, so far, is not completely understood:

Our Wilmington and Darby plant, which our Philadelphia botanists call *Engelmanni*, I have never been able to consider as such, since I saw in your herbarium a specimen from Illinois which, alone, answered Prof. Brown's Description: Leaves long & slender, soft and flaccid, light-yellow-green, dilated base longer than broad. (I will remark that the whole root is also longer than broad, whilst our Wilmington plant is the reverse). Last Nov. one year, Good Mr. Canby, brought me 16 fresh roots, which I dispatched to Durie. They arrived safe, were planted and every one of them succeeded à merveille. Last summer, D. wrote to me that, to his great surprise, only one of them proved to be *Engelmanni*. he did not say what the others were; but I begged him, if ~~he~~ he, to call them *S. Canbyana*. Durie requested me to require from Canby how this could have happened—whether they all came from the same locality or otherwise, and to look into the matter? Canby was too much interested not to clear the mystery and, the next day, I communicated to him Durie's letter, he went to

and their base appeared to me wider than long, as the ordinary Wellington Isoetes. The spores were reticulated.

I remonstrated and, confessing my inability for microscopic investigation, I maintained that spores alone seem to me insufficient to characterize a species, that the facies and habitudes of a plant were also to be taken in consideration. &c. &c.

Now for another puzzle! A few days ago, I had a letter ^{from Engelmann} ^{as new} announcing to me ~~that~~ a Ptilodonta, collected by Nuttall near fort something in Arkansas, and which I had given to Dr. Engelmann, with some Marsilea, Azolla, Salvinia, &c. to send to Prof. Brown. Then the Dr. touched the question of Isoetes - mentioning to me that Hall had sent him a good lot of his Isoetes melanopoda, Gray and, upon examining them carefully, he was inclined to believe that it was nothing more than a state of I. Engelmanni.

Now, my dear Gray, is there not cause in all these metamorphoses of that protean I. Engelmanni to become also Isoetes - mad? For God's sake! Change that name for - - - Shall I say Proteanus - As for me I have done with it, unless it is proved that this

plant is dioecious or even has three genders
masculine, feminine and neutral, which
different genders give the different forms.

My photograph will soon be ready. So
far the great artist, M^r Sun, has been scarce,
weak and lazy and refuses his assistance.

God bless you and your dear wife!
and forgive these long letters interlarded with
bad English and nonsense.

Always yours every inch of me.

E. Durand

Permit me not to read it over.

Phil. Jan. 26th 1864

Dear Gray,

Enclosed my photograph - a pretty harsh looking old fellow - Is he not?

I had promised myself never to be photographed or painted, but I could not refuse you: send me yours in return and be sure that I will take good care of them. If I dared, I would ask the favor of Mr Gray's carte de visite, to be placed en regard of that of Mr Vinton's, which I am expecting. Two more accomplished ladies can scarcely be found. I shall never forget the poetical expressions of our Venerable Darlington, returning from a visit to Cambridge: "When walking with the happy couple, in this beautiful Eden, I imagined I was in company with Adam and Eve, before their misfortune - They looked so happy, so loving!"

I have read your letter to the printer and advised him to communicate it to our Postmaster, to ascertain why the law, as you quote it, is not executed in Philadelphia as it is in Massachusetts? I suspect that there is something wrong

in our Post-office: The clerks pretend that where there is any writing, it must be charged as Letter. Mr. Thompson has assured me that this had be done to him several times and this is the reason why he sent your Manuscript by express; but the usual price was 50 cents. He offers, however, to have be be accountable for the 75 cents. As to the fault of not complying with your typographical indications, he throws it upon the Publishing Committee who, in view of economy, have adopted certain rules.

Nothing yet from Louisville, and I have written to Mr. Wm. Short for information. I have received the second part of Astragalus, with Oxytropis. Of the first, I have 70 species; of the second, 7. Tomorrow I will arrange those of the Academy. I send you Nuttall's Arabis virgata and a poor little specimen of a Crucifer from Nevada, which might prove to be Hesperis Menziesii. Keep them both if they may be of service to you.

Very affectionately yours

E. Durand

Phil. Febr. 16th 1864

Dear Gray,

I have returned from Bethlehem where I spent two weeks, comforting a sick old friend, reduced to loneliness by the death of his wife.

I am very happy to have photographs of yourself and lady. I set a great value upon them. Certainly the image of Mr Gray is not flattered - Mr. Sum has made a mistake as he frequently does and no wonder! The preparations preceding his operations are always tedious and, when the word ready is announced, you have generally a constrained expression which is neither the natural, nor agreeable. Such as is Mr Gray's photograph, I am very thankful to her and I will keep it religiously. The more I look at it, the more I discover its defects, and correct them in my mind so as to reestablish truth. I would advise you personally never to have your photograph taken full length - This style is always defective and looks smaller ^{in height} than the object; the style of mine is more faithful, and what else do we want in a portrait? the features and expression of the face.

Our printer had promised me the copies of *genus* *Horackia* before I started for Bethlehem. At my arrival last Saturday, they were not yet ready, and I expect them every moment. I have ordered 50 extra copies, besides the 20 allowed by the Academy. (total 70) I will retain half a dozen for your friends in Phil. Lancaster and Delaware. According to our convention, I have paid for them and I will send them to you by express in a small box, with two beautiful cones of *Pinus excelsa* from my friend Tiot's farm near Bethlehem. If this tree has given fruits ^{there} when much larger ones in our nursery garden have not, you may conclude, I think, that it is owing to the mountain air and exposure. M^r Tiot's farm is perhaps 300 feet above the waters of the Lehigh.

The Post-office affair has been cleared. The law speaks of what passes between an author and the publisher. In our case the printer is not (the publisher, but the Academy is. Such is the interpretation of our Post-master. Now it will be to the Publishing Committee to mail such papers.

I have the pleasure to announce to you that Dr Short's herbarium is on its way to Philadelphia

The 300 volumes and packages are contained in nine large boxes, and expenses to the office of the express are already 40 Dollars. If I ever regretted to be old, it is in this instance. How many new plants will I have to become acquainted with? I am very anxious to see those of Berlandier, the last collection of Ch. Wright, which unfortunately I refused to purchase, &c. &c.

I have received the sad news of the death of our old friend M^r Jacques Gay. I had given our Mr Lesly a letter of introduction to him. Lesly found him in good health and spirits, one week after he was no more. He died aged 77 years.

Dr Torrey has been in our city. I looked for him in our principal hotels, but did not find him. I regret very much not to have had a good shake-hand with him. I have some hope to see you next summer and to find M^r Gay quite recovered. I intend with Dr Leidy and my Bethlehem friend to visit the N. Hampshire Mountains, towards the end of June. Adieu! and my regards to your lady.

Truly yours E. Durand

Phil. Febr. 25th 1864

Dear Gray

What do you make me say? That I find Mr. G's photograph far from pleasing.... I believe I said it was not flattered and might have been better, as for pleasing, in spite of its defects, I was very much pleased with it and thank Mr. Gray for the favor I have received. I said: I restored it in my imagination.

Nothing more magnificent in its way I know of than the herbarium! Fine and perfect specimens, costly paper, strong and elegant boxes, arrangements exquisite, lasty and luxurious, &c. Have you ever seen it? It is the admiration of all our Members and, certainly, you have been more than generous, you have been magnanimous! in using your influence to have it sent to Philadelphia, instead of Boston or Cambridge. We all admire your disinterestedness and feel highly indebted to you for the preference. I hope you never shall have occasion to repeat it. I am here the interpreter of the general sentiments of our Members.

Besides the 300 Vol. There are numerous packages that have never been opened by

D^r Short and many others of undetermined specimens
Berlandier's collection; Fendler M. Mexico and
Venezuelan plants; Wright's plants of Cuba
Everndberg's Mexico, Lindheimer's Texas, C. L.
Parry's Rocky Mts. &c. &c. As to Hall and
Harbour's collection, I do not remember to
have seen it and I am almost sure that
it is not here — Vous verrons plus tard (if it is not)
par!

There were packages addressed, one to Mr
Beel of Washington (gone); one to Mr. Eaton,
(James wrote to him to inform him) and two
for the late D^r Booth. What shall I do with
them? I believe I saw one too addressed to
Prof. Dewey, but it is mixed with the other
packages. It will take time to put the whole
in order. I begged to be let alone to the arrange-
ment of these enormous mass of volumes
and packages — The 360 Vol. are ranged in rows
in numerical order. I am very systematic
in everything I do and I want no other assistance
than the manual to bring me and carry off.

I began yesterday to take the inventory of
the contents of each volume. I went through
40 of them, but it was too hard a job. Today
I finished 23 and I am half dead with fatigue.

I suppose Dr Short belonged to the old Linnean School as, in the arrangement of his herbarium he has, ingeniously, combined the artificial and natural systems to a certain degree.

He divides the phoenogamous plants in two Series: 1st Dicotyledonous, 2^d Monocotyledonous and begins with Class 2^d Limn. Oleaceae Callitrichaceae, Lentibulaceae, &c. Class 3^d, Piperaceae, Saururaceae, Valerianaceae, &c. Class 4th Rubiaceae, Plantaginaceae, Synaceae &c. and so on.

The irregular corolla plants of the class Dianthia, such as Justicia, Verbena, Lycopus, Salvia, have been transferred to the nat. Order, Acntheaceae, Verbenaceae, Scabiatoe.

25th Here I was stopped yesterday by a visit.

This morning, I took the inventory of 22 Vol. In all 83 vol. in 3 days. I have also examined every loose package. Hall & Harbours plants are not there. The family has it appear, disposed of them. I was mistaken in my idea that I had seen a package for Dewey. All expenses of boxes, packing, Cartage from Hayfield to Louisville &c. have been paid by the Academy \$40. in all.

I do not know what has been paid for freight
at least 50 Dollars.

Now why am I so old? There is delight-
ful work upon this fine herbarium for
10 years to come --- in incorporating all
these packages as yet unopened or unman-
aged. I believe I will have to make with
all that a supplementary herbarium.
All the volumes are pretty full and will
not take many more species. Have Berlan-
dier's plants been published in toto I have
seen many mentioned in Mex. Boundary.
Are there fine specimens of Fendler's Van-
Zeele's Plants been published?

It is late and I am exceedingly tired
I will end my letter by complimenting you
upon your generosity in the gift of your
herbarium, books &c. You are the true
man of science!!! I will say no more.
If I do not go to the White Mt I will certainly
go to the inauguration of your new fine
proof herbarium.

Adieu, my best regards to Mrs Gray
and believe me as ever sincerely your
admirer & friend (E. Durand)

Phil. March 7th 64

Dear Gray,

Do not say perhaps, but come without fail! I would have had a room prepared for you; but, on mentioning your visit to James, he exclaimed He will not be for you, but for me, as he has promised us long ago to come and spend some time with us. Let it be so, Dear Gray, in as much as the friend's room in my house is now occupied by my son's wife's mother. What a pleasure I anticipate from your visit in Philadelphia, I hope we shall spend a good deal of our time together.

I continue the inventory of each volume of the Short's herbarium, with the view to have a key to find out what is desired to be seen in this immense herbarium. It is a work of longue haleine, which has occupied all my mornings from ten to two P.M. I have arrived at Vol. 241. Without an index, it would be ^{almost} impossible to study it with any satisfaction.

As the bundles, I have not had time to look at them seriously. I see in the herbarium specimens, even undetermined, of Wright, Fendler and Berlandier's collections and I think the packages of the same are simply some that Dr. Short has had no time to place in. We will see that together when you are here; but the index is the first operation to make before being able to see clear in the rest, and I hope it will be finished when you come. Wright's Cuba plants have not been touched I believe, but Fendler's Venezuelan have been mostly distributed in the herbarium.

I am going to write to Mr. W. Short for Grisebach's flora and touch the matter of Hall & Harbour's collection.

The freight from Louisville has been 131 Dollars. Expense for packing 40. #171. Pretty good prices! but nobody has complained at the sight of that large botanical treasure.

I repeat --- don't say perhaps; but come I want your advice - my views might find opponents, yours will be law.

Very affectionately yours
E. Durand

My regards to Mr. Gray, I hope she continues better and better.

Mr. James expects she will accompany you - a little traveling would do her good, I have no doubt. }

Philadelphia March 8th 1864

Dear Gray,

I address you today, at the request of our Phil. Botanical friends, to inform you that the Mess^{rs} Charles and Aubrey Smith, Dr. Leidy, Bridges and others, having heard of your intended visit to Philadelphia, are desirous to celebrate it by a botanical excursion on the Reading R.R. and its branches in a special car, altogether at our disposal and stopping wherever we see a fine field for herborisation; travelling expenses paid by the company or at least by its President M^r Charles Smith who commands on the road, with good provisions and good wines at the different stations. (Ceci entre nous)

Therefore, these gentlemen beg you to postpone your visit until the first days of June, otherwise no botanical exploration could be expected before that time. . . .

I have remarked in my rambles of last summer that the tracts of rail-roads were the best botanical fields that could be found. These roads being opened generally through uncultivated lands and often through the very wilderness, the native plants are more

abundant than on cultivated grounds where
the localities have been destroyed by the plough.
How many times, rolling at the rate of
from 20-30 miles an hour, have I perceived
- red beautiful known or unknown flowers
bordering the Rail-road for the possession of which
I would have given ten Dollars to stop the cars
for only one hour or so.

Accept the invitation, I pray you, This
excursion through the rich Coal ^{& Iron} lands of
Pennsylvania will be most interesting to you,
especially with our geologists and with one,
Ch. Smith, well acquainted with the country
and the mining operations. In those three
months I will have time to arrange the Short's
herbarium and complete its index, without
which, it is very difficult to put the hand
on the volume containing the particular
order or genus which you desire to see. If you
cannot postpone your visit, come at all events
and we all shall be happy to shake hands with
you cordially.

~~Yours~~ ~~Durand~~

Ever yours, E. Durand

Let Mrs Gray be of the voyage, it will be bene-
ficial to her.

Phil. March 23^d 1864

"Tout va la cruche à l'eau qu'à la fin elle se brise."

My dear Gray,

I have imprudently been laboring at the Short's herbarium in the unheated botanical room of the Academy and have caught in consequence a beginning of pneumonia which might have been fatal to a weaker constitution, or with less attention than I have given to it.

Now I am right well again and ready to resume my operations, but, hereafter, with more prudence than I have been accustomed to - I feel that I am no more the young man and I have seen, this season, so many old acquaintances die from the same cause and, among the rest, my old friend Franklin Bacha, that I must now be on my guard, if I am willing to see the end of what I intend doing with the Short's herbarium.

I must confess, my dear Gray, and this very confidentially that I feel somewhat disappointed with the arrangement of that curious and most valuable collection. I begin to see that Dr. S. was more of an amateur than of the true botanist. He is quite unsettled in his nomenclature, often at fault and his combination of the Linnean and Natural ~~order~~ systems will not do after all. The places in juxtaposition orders and genera that have

No relationship, whatever to each other. Were it my own herbarium, I would remodel it completely; But so as it has been presented by the family to the Academy, ^{so} it must remain, and be for ever the short & genuine herbarium!

I am very anxious to see you in Philadelphia about this herbarium. Nothing will be done without your advice. The 300 volumes are generally very full and there are Wright's Last collection of N. Mexico - Hall's Rocky Mts & others to ^{be} placed in. This cannot be done unless you remove others. Therefore, I would propose to form a special herbarium of Peadar's Venezuela plants with Holton's New Granada, Cancun, & other South American collections. and another with the Wright's Cuba plants - Alexander's Jamaica Pl. and others marked Flora Antillana. The remaining packages of Berlandier's collection, Wright N. Mexico, Gregg & Coulter Mexican plants would replenish the vacuum made by the removal of the above. I have no precise idea about the contents of the packages; They are piled up on the table of the botanical room waiting the mild weather that will permit me to examine them.

Nothing, I believe, has been settled by our friends as to the time of our grand botanical excursion.

I have had no occasion to see them. I could not attend the two last sittings of the Academy - I intended going last night, but the weather was too cold and I not well enough to run the risk.

In my opinion the last week of May is too early, in the mountains especially, Our harvest would be insignificant. ^{They} The beginning of July, on the contrary, Everything will be in bloom and our boxes too small for our gatherings. The 7th of July will, I have no doubt, accommodate every body and those who, as myself, had other excursions in view, will not regret to postpone or advance them for the pleasure of a floral campaign with their young General Anna Gray of whom I declare myself the most devoted of his Veterans -

affectionately = C. Duran

My best regards to Mrs Gray, I hope her health is improving and rejoice at the prospect to see her next July.)

Phil. March 31st 1864

My Dear Gray,

Last week of May will accomodate every body - so all right! I hope we will have a jovial feast of our excursion.

I have not yet popped the question about Lichens and mosses. I am rather shy about it, as our botanical department has spent a considerable sum of money, this year, in books, herbarium, repairs to botanical room, &c. In a community like ours, every one watches the interests of his particular branch, by curtailing the others as much as possible. Besides we have no cryptogamists at the present moment and you can form no idea of the quantity of mosses, Lichens, fungi, algae, &c. I have discovered in overhauling our collections to make room to the shorts herbarium and changing the old arrangement. I think, besides, that in the several packages labelled ^{Wright} Cryptogams of N. Mexico & C. of Cuba we may find that we have his mosses and Lichens. I have, this morning, opened some packages, which I thought were merely duplicates -
-leg.

and I have found them to be plants unnamed
and to be introduced in the herbarium. I have
taken downstairs several of Lindheimer, Fendler
Wright and Berlandier's unnamed species and
have begun to work them up.

Berlandier's, as Dr. Short has expressed,
are not fine specimens; but the others in general
are magnificent. Dr. Short must have had
the choiced sets.

I am glad that you have entered into
my views: To form a special tropical herbar.
of Holton, Alexander, Wright and Fendler's &c
tropical plants. What a pity that Dr. Torrey in
the enumeration of the Mex. Bound. plants
has not given the numbers of Fendler & Lindhei-
mer's species? If ^{your} Record book extends to them
it would be of great use to me; otherwise,
I shall have to take the Vol. of my herbarium
to the Academy to assist me, as, as far as I
have them, I believe my names are right.

I have only time to run to the post office
so farewell and believe me yours, &c-

E. Durand

Philadelphia April 13th

8 O'clock P.M.

Dear Gray

My eyes are so sore from the reading of
from page 40 to 65, of your manuscript for print-
ing, that I had to take a long walk in the country
to avoid using them on any other work. It is a
shame to our Academy to have their Proceedings
printed in such a small type which I could
not read, (the notes principally) without a
magnifying glass.

On my return home I found your correct-
ed sheets, and to my astonishment errors printed
again which I had corrected. Tomorrow morning
they will be in the hands of the printers to whom
I delivered ^{this} morning your Polemioniacae, just in
time to take their turn.

I have not yet thanked you for the additional
specimens of Parry. I did not expect, nor
intended, to receive them gratuitously, and I am
ready to pay for them, unless it is your intention
to increase my already too great indebtedness
towards you.

I have not seen as yet the draft of Mr. Hall
for 56 Dollars - I am very anxious to pay it

Perhaps he cannot negotiate it ^{not} in his great
city of Athens. I am sorry now, to have
accepted your proposition to send a check on
one of our banks - If I had no account
in bank, ^{but} I could easily have obtained one
from some friend, or a check on one of
St. Louis banks.

I presume Mr. Desmoulins has addressed
you his (and mine) monograph of the Amer.
Vines. He has used, rather too freely, the matter
of my letters to him, by publishing passages
which I considered ~~as~~ confidential. When he
informed me that he was going to republish the
Popular memoir of the Vines & Wines of America
which I had sent to the Society of Acclimatization,
I thought it was to be without any changes ^{except}
~~but~~ ^{correcting} the errors and adding a few things
I suggested to him.

One of the intentions of that paper, was to
tranquillize the minds of our wine-growers with
regard to an impending competition from this
side of the Atlantic. My opinion is that so
long as the palate of Americans is not favora-
ble to the wines of France, this country will not
really become emphatically a wine-growing
country and, of course, a rival to France in
that branch of Commerce. In support of this

Idea, I related several current anecdotes to show that
even in the best classes the sour (soi-disant) Wines
of France were not favorably appreciated -
Such was the additional anecdote at page 62
which I regret very much to see in a merely
Scientific Journal. &c. &c.

I cannot go any farther, my poor eyes
are too sore.

Yours sincerely

E. Durand.

If you want to cure Drunkenness, unfortunately
too common in this country make Wine and
drink Wine - On it you get tipsy but not
drunk, neither heavy and drowsy as you
do on malted drinks.

I would like to see your intemperance
Society take that subject seriously in consid-
eration -

Again good night!

Your 150 Extra Copies will be ordered and
20 besides bestowed upon the author.

Phil. April 25th 1864.

My Dear Gray,

I am ready to carry to Adams' express the package containing all the specimens of *Sacra* in the 3 herbaria. It is against the rules of the Academy; but I shall overrule the regulations in every occasion where the progress of Science commands it. I do not do it secretly, but openly, taking as witnesses one or two of the curators and proclaiming to be unavailing ^{for the consequences.} I have not sent you a small bit of the *G. heterandra*, which I have from Dr. Torrey. I suppose you have much better specimens. By the by this species lacks of the physiognomy of the genus! Request your pupil to be careful not to mix the specimens and to leave in each sheet the specimen belonging to it. I believe you have in my package every species that has been described. If you find in my lot something that you may be short of, help yourself, and would say the same of short plants which we owe - to you.

I hope you will have cause to let pass my *Sium* Carsoni (not Cursoni) at least as a good variety of lineares. Curson, to whom I gave your letter, has scruples about attaching his name to it; He says it ought to be called *S. Greenei*, if really a distinct species, as Greene was the discoverer of it, but I do not know

Green and never saw his specimens, except the
miserable ^{one} which Porter sent me. How these
gentlemen have mistaken that plant for
Heloragadium nodiflorum I cannot comprehend.
The word nodiflorum alone ought to have taught
them better.

I have now a discussion with the Rev. Mr. Blake
about an Astragalus which he sent me under the speci-
fication of Alpinus. I maintain it is Oakes'
A. Robbinsii, although I do not deny that it might be
a form of Alpinus. The legumes are very much alike,
but it is Oakes' plant, I am certain? To clear up
the difficulty, I advised him to refer to you our
difference with my reasons. I am almost sure
that my friend Frit, in our rambles through the
Alleghenys, found the same form, but in a very
imperfect state. I told him ^{at the time} that I thought it was
A. Robbinsii - He studied it ^{since} and pretends it
answers better the description of A. Cooperi.
When I go to Bethlehem I will easily ascertain
the fact. The two species cannot be mistaken
one for the other.

I am, every day, occupied in overhauling the
packages of Dr. Short. They consist in duplicates &
in unascertained specimens of Lindheimer, Fendler,

Gray, Hall

Dr.
Wright & Berlandieri's specimens and many Cuban
and South American plants. At the last meeting
of the Academy Dr. Wilson presented a magnifi-
cent work in folio entitled (I believe) Plantae
Columbienses. What there is published of the work,
a thick Vol and a number, will assist me
in making up some of the Venezuela and New
Grenada plants of Dr. Short. This work is ^{one of} the finest
specimens of drawing and typography that I have
seen, it is printed in Berlin but I forget the author's
name.

I am waiting anxiously for you to give me
directions about the disposition of Dr. Short's herbar.
I am determined to arrange it according to the
now generally adopted natural system. I do
not like this Linnaean-natural order adopted
by Dr. Short and by the authors of the general herbar,
of the Academy. It places in contact plants that have no
-relationships.

When you pass through N. York, bring me,
if you please my polemouidaceae, if Dr. Torrey
has done with them. He keeps things too long.

Ever yours, and respects to Mr. Gray

E. Durand

Do not be surprised at the corrections, I made 3 or 4
ladies talking loud in the next room, I scarcely knew
what I was writing.

Was Mr. Ch. Smith written to you about our botanical excursion?

Philadelphia July 9th 1864

My Dear Gray,

Wishing to take advantage of a free ticket that has been presented to me by Mr. Ch. Smith, I am just returned from an excursion to the Anthracite region which, as yet, I had not visited. As mountain scenery it is worth seeing, but for herborisation it bears no comparison with the more eastern Counties of Penna., the region of the eastern branch of the Susqueanna and of the great Pocono mountains.

My principal stay was at Pottsville, a very active little town, built in the gorge of steep and barren mountains rich in abundance of coal and iron ore, but very poor of vegetation. I brought nothing from this trip, in spite of great fatigues experienced in climbing those rocky hills, under the rage of a burning sun and the weight of seventy winters on my shoulders. After all, to such fatiguing rambles I prefer my quiet occupations, at the botanical room of the Academy, where I spend about four hours, every day in overhauling the Short's herbarium,

and emptying into it the unopened packages of unnamed plants, &c, and removing from it all those belonging to tropical America, with the view to form a special herbarium, as advised by you.

In the same time that I feel regret for our exploded great botanical excursion, which regret is sadly felt by our were to be companions, I am glad to learn that you must see the great Short's herbarium and will visit us in October to remain quietly and leisurely a few days with us. I have many advice to ask you in relation to this and the other herbaria: the great defect, perhaps, of the Short's herb. is, in many instances, to have a superabundance of duplicates.

I called, this morning, on Mr. Ch. Smith to communicate to him the sad news that you could not come for our intended pleasurable botanical excursion of the end of this month. He appeared disappointed and said he would write to you. All our botanical friends here sadly regret that this grand feast did not take place in May, as agreed at first. The season was more appropriate, and those

who had not the advantage of a personal acquaintance with you, rejoiced with the rest at the opportunity offered to them to know at last their highly respected botanical leader. I hope they shall not be frustrated in their new expectation to see you next October.

Adieu! my dear Gray, believe as ever
Sincerely yours

E. Durand

to Mr. Gray,
Respects and wishes for the complete restoration of her health.)

Your opinion on my project will have full weight upon the opinion of our Academy.

in the main herbarium, and removing from the latter all the equatorial plants that had already been placed in it.

This done, I shall wait for your arrival to determine what will be the next step. My idea is to rearrange it according to the present classification, that is to say to follow the order you have adopted in your publications. The present arrangement of Short's herbarium is the Linnæan Classification - entering in each class all the natural orders that may belong to it. This is the arrangement that has been followed by Dr. Pickering with our general herbarium. It is bad in this respect that it places in juxtaposition families that have no relation whatever to each other.

I have another object in view: It is to condense in one the Short's herbarium and my North American herb. Each separate is incomplete, but united, they will constitute a more complete resort for the botanist. So far, the N. A. herbarium is the richest in number of species, but the other surpasses it in the splendor of his specimens.

Now, my dear Gray, fare you well, you and lady.
E. D.

August 28th 1864.

Dear Gray,

I have received your kind letter, and transmitted to Lady your Nantucket Aira Cargophyllata. Poor C. writes to me that he has been afflicted with dysentery and unable to engage upon his contemplated exploration of Eastern Maryland. It is to be regretted as his activity and perspicacity might have accomplished some new discoveries.

I have not had as yet the occasion to broach the question of subscribing to the last Collections of Wright's Cuban plants: I know, beforehand, that it will not be favorably received. Our acting treasurer Mr. Vaux is a great economist - He will urge the low state of our finances, and the two hundred Dollars which have been spent upon the Short's herbarium. It is enough, will he say, for one department of the Sciences. &c. The fact is, my dear Gray, that we can well do without them, as probably the 9/10th would prove mere duplicates. The Collections of equatorial plants in our herbaria are immense. Besides the great addition afforded by Dr. Short's herbarium, consisting of Wright's coll. of 1856 to 1860; of Stolton's Plantae Neo-Granadinae Bogotance, Cauceae & Guianenses, Coulthron's & Jameson's Guatemalan Andes, Pender's Plantae Venezuelae, R. C. Alexander's Jamaica Plants, &c. We have Poiteau's rich herb. of St. Domingo;

James Read & Dr. Griffith's collections in several of the West-India Islands, &c. - - - - -
And no body to interest himself in the arrangement of that splendid special flora. I am too old to undertake it myself; my branch is confined to the North American species for which even my poor eyes are becoming perfectly unfit; I can neither read long the fine type of the prodr mus, or other works, nor use the glass for analytical studies.

I have received a most graphic and poetical letter from my friend Tiot, on his recent exploration of the Pocono mountain. He sends me a list of the plants he has collected, consisting of above 80 ascertained species and as many &c. unascertained.

From the Pocono station of the Lackawanna R.R., they started, on a primitive wagon called Buckboard, upon the most wrecked road imaginable and arrived at night, bruised and half dead with fatigue, at a village called Hopedale at the foot of the mountain, at which place they had secured comfortable rooms. They started next morning, having as a guide the son of their landlord. The ascension was through the primitive forest, with all the

usual incumbrances, rocks, fallen trees, torrents, &c. They met on their road a magnificent water fall about one hundred feet high and others above this. The scenery was impressive and sublime. After four miles of the most arduous march, they arrived at a splendid lake, the object of their search. There they found a boat, belonging to their landlord and they began paddling on the lake and collecting on its banks an abundance of beautiful plants. They renewed their visit the next day. Tiot speaks exultingly of the splendor of the scenery and says he never met before such field of botanical wealth; Almost every plant was new to him. There, and every where in that region, he saw the pretended Helosciadium rodiflorum, of which he brings fine specimens with ripe fruit. He says that this umbellifer is so common in the creeks, marshes and ponds, that it is surprising that we have had to wait for the birth of Dr. Trail Green to acquire a knowledge of this plant.

I have now nearly arrived at the end of my work 12-15 on Dr. Short's herbarium. This operation was to empty all the unopened packages

Phil. Dec. 4th 1864

Dear Gray,

In answer to your favor of the 30th ultimo, I will say that Dr. Short's family, at your request and on a letter of me, sent us the first 5 numbers of Grisebach's Flora of the British West-Indies, and n^os 1 & 2 of Wright's Cuba plants, of the latter of which, by the by, we have two numbers of n^o 2 (one of which I might return to you, if desired) ^{as} Be good enough to complete the flora of the W. Indies, as you have now the means to do it, and the other whenever you can. You will draw on the Academy for the cost. I have almost succeeded in obtaining that the Academy subscribe to the last collection of Wright's Cuba plants. Please tell me the number of species and cost, and retain one set until you hear from me on the subject.

I have seen l'Abbe' Brunet and opened my herbarium to him. He has made in it a better herborization than he could have made in any local exploration. I have accepted his invitation to a trip to Anticosti Island, or any other unexplored region of Canada --- if health and

and nerve permit... Ah! my dear Gray, it is when such opportunities present, that I regret to be an old man and to have done so little for our science.

I am yet engaged in overhauling my herbar. to cleanse it from occasional worms, correct errors and put aside for your inspection, certain new southern plants and other doubtful and unfit for study specimens. When I have finished, I will send the whole to you and I have no doubt that you will find some interesting things in my invoice.

I have received your specimen of *Najas flava* var. ^{major}. and thank you for it. Could you send me a parcel of a specimen of *Nolina georgiana*, My I have several plants in my herbarium with that label, none of which answers the description and which I rather believe to be *Veratrum intermedium* of Chap.

Very cordially yours

E. Durand

My respects to Madame.

Among some specimens of Mr. Brunet, not made out, I recognized a young plant of *Spergularia rubra* var. *alba*. and your *Draba sicula* var. *glabrescens*, *D. arabizans*, My

Philadelphia March 9th

Thanks to the Almighty, my dear Gray, you have had the good luck to escape unhurt from a great accident! Let me congratulate you heartily. Had I known anything of that accident, before I heard of your safety, it would have made me very uneasy; but, as I am somewhat disgusted with the news-papers, I was quite ignorant of what happened at Bristol, when James came to my house to inform me of your escape. God be blessed!

I have taken advantage of the mild weather to begin my work at the Academy. I am arranging the Short's herbarium according to ^{the} classification of your Flora of the United-States, instead of its present Linnaeo-natural arrangement. I have now 7 volumes completed to the frumariales. I believe this herbarium of extra-tropical plants, I will be able to condense in two hundred volumes, reserving the 110 vol. remaining for the tropical herbarium.

Very affectionately yours

E. Durand

library, would you therefore, be so good as to send me a list of such bot. works as would be most useful. Have the plantæ cubensis or Wright be published? I believe you send us one or two of the first numbers. Have the Venezuela plants of Fendler be published? I wish, during the winter, to work and arranged all the equatorial plants belonging to the Shortt collections.

Farewell! my dear Gray, remember me respectfully to your lady who believes me affectionately yours

E. Durand

Mr. Fiot begs me to offer you his regards.

How do you come on with my package of doubtful plants? When you have do with it, please to forward it to the Academy. I will take my lodging for the winter, at the St. Lawrence Hotel.

Bethlehem Sept. 25th. 1865

Dear Gray,

I have past my summer months roving from one place to the other, principally in Lancaster and Bethlehem. Here I am yet, near my friend, Mr. Fiot, whose health is not good, but rather improving.

Our friend Porter, with whom I spent some happy days in Lancaster, came here with me, two weeks ago, to look at Fiot's herbarium, composed principally of Pennsylvania plants, with many mountain species, among which Porter found 12 species new to him as Pennsylvanian. This was a great haul for his future Catalogue!

When in Lancaster, I had occasion to see the fine collection of the great laker plants, brought by Porter and companions. Among them were two specimens of a small Isoetes with rather large spores, which I thought might prove identical with the Catskill plant in the Ph. Academy's herbarium. These were given

to me to be sent to my friend Durieu.

D. writes to me in this regard "That it is an admirable discovery, far more interesting than if it were a new species. It is an undoubted J. lacustris, the first that he and Prof. Braun have yet seen of North American origin; all those labelled by that name in Am. herbaria being principally J. riparia, Engelm."

I sent him, however, a few days ago, several specimens, collected ^{in the Niagara River} by Mr. G. W. Clinton and labelled lacustris, which may prove to be the same as the Great Lakes plant, although they appeared to me answering the description of J. neuralata, D. R. We will see what Durieu will make it.

I started from here for Philadelphia with Prof. Porter and Mr. Toot, intending to take an excursion to the Jersey with our Phila. colleagues; but the weather was unfavorable and our party fell to the ground. In a visit we paid Porter and myself to Prof. Carson, a discussion took place in which C. contended that his name was to remain to the pretended Helosciadium

rodolphum, of which I had made a specific description on the more perfect specimens he had brought from the Pocono mountain. Porter thought that the name Greenii was the most proper one, the plant having first been discovered by Dr. Greene.

This discussion was extremely unpleasant to me and embarrassed me extremely, fearing to hurt either of these gentlemen. What shall I do? My idea was to name it Pocconense, but Carson seems to insist that it would be Carsonii.

I fear that this plant be described by somebody else, will you be so good as to publish it in the Journal of the Acad. of Nat. Sciences, so as to give me the priority. My botanical children are so few, and I have so little chance, at my age, to foresee the possibility of getting any more, that I hold fast to this as the unique Pennsylvanian.

We have, at the Academy, a library fund of about 800 dollars. Now that we have in the Botanical Dept. some of the most influential members, is the time to enrich our botanical

January 19th 1866.

Dear Gray,

Inclosed nine Dollars due you by the Academy -
With many thanks for your trouble.

In my particular, I am much obliged to you for your
paper on new species of California and Nevada plants.
It has interested me highly as containing several spec.
which I owed to your attention, or which I had from
other sources. Your description of Astragalus tri-dactylicus
has satisfied me that all my specimens were too incon-
spicuous to discover whence ^{tri-dactylicus} they differed from triphyllus.
I long for your opinion on A. coarctatus of Parry.
I really believe that the small flowers A. triphyllus
of Nuttall might well be tri-dactylicus, but I have
not it here to compare.

In breaking house & sleeping, I have placed myself
in an unpleasant predicament, that of being separated
from my herbarium.

At last, my Dear Gray, I have the satisfaction to see my
name specifically attached to a dwarfish plant of
California. It is well worth working at botany
for over fifty years to arrive at this unique result.

But why did I stay at home, instead of starting for a
far off exploration from whence I would have brought
plenty of new things to illustrate my name, like
Parry, Fendler, Wright, &c. ? Were I twenty years
younger, I would start tomorrow, but now 72
struggle for me next Thursday 25th instant, and my
only resort is the Pennsylvania Mountains, where
I cannot find anything new - And even this may be
refused to me, as I consider my old friend Frost
seriously ill.

I saw a note in the sheet of one of the plants you
have returned, which has caused me regret: You
say that you have not Centaurea partibillensis.
Why did you not take it, in as much as there were
two specimens, a small one collected by Dr. Woodhouse
and a very large one labelled by Nuttall. C. Calicutapa
Recollect - If there is any thing in the package
not examined; such, for instance, as the specimen of
Vaccinium elevatum and a Leucothoe which I consi-
der as a new species, &c. - Keep them for you. I
consider Gray's herbarium as the Typ. N. Am. herb.
which ought to have all the rarities.

I need not repeat that you will have all my
Nuttall's autographs; but let me enjoy them for
the few years that are left to me. I have instructed
my son, when I take my start for the other world,
to place my herbarium at your disposal.

Adieu & believe me cordially yours
E. Durand

Philadelphia March 16th 66

Prof. Asa Gray,

Dear Gray,

I will mail, with this, some prints which our friend James has returned to me. I had taken them to his house, for you, when you were last in Philadelphia, but they were left behind. These prints are from Durieu; one is his catalogue of the seed of his Botanical garden (soliciting exchanges) The other is a notice of some new species of Isoetes.

I acknowledge with thanks, the receipt of your notice of Mr. Darwin's treatise on the Climbing plants.

My Nuphar lutea of Schuylkill river, Collins, proves to be Engelmans's New Species Nuphar variegatum, which appears to be as widely spread as our advena. J. Hale's specimen from up Louisiana; Geyer's specimen from Rivière aux Outardes, Nicollet's N.W. Expedition; another in Short's herbarium labelled New-York, H. H. Eaton and others from New Jersey in our herb. belong to the same species, and

I am, almost, certain that I saw it in ^aPocono -
Mountain Lake, last summer, with Mr. Piot.
I was struck with the form of its all floating leaves,
resembling those of the European *Nuphar* and I
exclaimed *Nuphar lutea*! But my friend laughed
at me and said do you not see along the shores
the erect leaves of *N. advena*. Nothing more.
Unfortunately we saw no flower, nor capsules,
and I did not know ^{these} the distinctive character of
the leaves of *N. variegatum*, Engelm. But I intend
paying a visit to that beautiful lake purposely
to ascertain the fact. It was covered with beauti-
ful *Nymphoeas*, *Nuphars* among which *Kalmiana*
with *Brasenia* and other aquatics. We brought home
half a dozen species of plants which Porter did not
know as belonging to Pennsylvania. Our Philad.
Botanical Club Porter, Leidy, the Smiths &c, intend
visiting it next summer. My poor friend Piot
is very ill and I fear that he never be able to go
there again. Dr. Engelmann has found in our Phil-
collections 2 new species of *Juncus* with the true
J. acutus.

I had the pleasure to see Dr. Torrey, just
a month ago: Why did you not come with him?
I think I heard him say that he had left you at
his house in New-York.

You told me in your last letter that, at the
first opportunity, you would dedicate to me a new
genus under the name of *Durandina*.
Durandin is also a family name as common
as mine - Thus do not waste your favors upon
strangers. If *Elidurandia*, or *Elloeduranda*, both
euphonic enough, are found too long, let Kanchon's
friend ^{have} all the honor to himself.

My regards to Mrs. Gray, I hope she has now
recovered her health entirely.

Believe me very sincerely, my dear Gray,
ever yours

E. Durand

Phil. March 23^d 1866.

My dear Gray,

I did not dislike your little photograph and I keep it religiously with that of your lady; but, in general, photographs of the entire body are diminished in height and the features too small; I prefer what is called vignette. That which you sent me last year, reading a paper, is an excellent one, the best I have seen of you. I like also the smaller one of the two which I have just received, but the larger one, although a good likeness, does not give an idea of your sweet and animated expression. You look vexed, dissatisfied. Having already two, one of which is to me perfection, it would be abusing your friendship to retain either of the two for myself; but, if you permit me, I will present them to two warm friends of yours Dr Carson and Prof Porter or any other you will prefer.

I am going tomorrow to see my good friend Frost who is dangerously ill and wishes to see me.

In general appearance, Nephus Variegatus of Engelm. resembles very much the European luteus. The distinctive character between

(according to Engelmann)
The leaves of Variegatum and advenum may also
be the same as between the latter and luteum.
But the form of the capsule in Geyer's specimen
appears to me very different, almost conical.
We have perhaps both Variegatum & luteum.
The Schuykill specimen, which you have, might
be the latter species. I will put all our botanists
after it next season.

When you have done with my plants,
please address them to me directly.

St. Lawrence Hotel, Chestnut St.

Truly yours E. Durand

Respects to your lady.

Shall I send back your 2 phot. or dispose of them
as I propose?

Mr. Commons of Delaware writes to me that
he has found Ilex marginata, var. biflora
of Chapman. and a new form of Cornicifera
racemosa with finely divided leaves, should it be
C. americana?

Phil. May 1st 1866.

My Dear Gray,

I have received your kind letter of 26 ultimo, and your invoice of plants; I will, this evening, present to the Academy your plants of Mauritius &c. I will return you the specimen of *Polygonum geniculatum* of Dr Riddell for your safe keeping. I will return you also what I consider *Vaccinium elevatum* - at least it seemed to me that it answered well the description of that species in D.C. 1 prodr. It has, no doubt, a great affinity to *V. Standneum*, but the axillary flowers ~~of~~ long drooping ^{peduncles} ~~pedicels~~ and the leaves, broadly oval and subcordate, seem to distinguish it, so far as may be judged from such a small bit. I will send it back to you for re-consideration & keeping.

My poor friend Felt died very suddenly on the fifth of last month. I had left him a few days before, to me in a desperate state, but himself, persuaded that he would soon get better and that the fine month of May would cure him, and we would be able, in June, to revisit our beautiful mountain Lake of Pike County, where we had found so many interesting plants not yet found in Pennsylvania.

His brother, his heir at law, has presented me with his herbarium. His collection of Pennsylvania plants is very good and will permit me to replace my old specimens; But what is of great value to me is a set of 12 or 1500 specimens of rare N. A. plants which I had given him and will not be sorry to return to their old sheets.

When I have received those plants, it will be an occasion for me to overhaul my whole herbar. and detach from it all the specimens of Nuttall which I have promised you. I will mark those of which I have no specimens from other sources, with request to you to replace them, when permitted, by duplicates in your possession.

The death of my friend Piot is a great loss to me. We had been acquainted and on the most intimate footing for over 40 years. I may say that he was the only surviving true friend that was left to me in Philadelphia. This is the greatest misery of old age to see old friends drop, down, one after the other and remain isolated. Had I not my excellent son, I would not know what would become of me! We intend both to pay another visit

to the family who are urging me to go and spend the fine season with them.

My dear Gray, your photographs are always sweet looking to me; but the two, which I have already, I relish particularly; one, in matching that of your lady, is in the friend's album; the other, which I prefer to those you sent me a month ago, is in the botanical album, opposite that of Dr. Torrey - and I shall claim another excellent one, from M^r Piot's album.

It is just that your numerous friends and admirers should have their share in the distribution; I will therefore inquire whether Carson & Porter have been satisfied in that respect, and if they have, Leidy, the Smiths, Canby &c. will be very happy to be gratified with the two I have left.

I had the pleasure, a few days ago, to receive a letter, with his photograph, from my old friend Rev. Curtis.

My regards to W^m Gray and believe me very cordially yours

E. Durand

Germentown
Philadelphia July 11th 1866

My Dear Gray,

Your affectionate letter, dated 3^d,

With two separate envelopes, were received only the day before yesterday, through my son who had visited the city - I am now with my family in Germentown, a little cooler than in Philadelphia and with delightful well shaded avenues, bordered with splendid country houses, where I meet many old acquaintances.

I went to the city yesterday and spent the whole day in attending to your desiderata. I did not find in my herbarium any of ^{the} Nuttall's plants that I was looking for; but in the Academy, N. am. herbarium I found two of them, Lepidium lasiocarpum (in fruit and almost without leaves) of which I send you a parcel; and Draba densifolia, which you will return. As to Pachypodium sagittifolium, it was there also, but I could not detach it, being pasted on. It very much resembles P. integrifolium n^o 57 of Hall & Harbour's plants.

Before leaving the city, I would very hard

great emotion, full as it is of affectionate sentiments towards me on the part of yourself and good lady: I am proud of your friendship, I assure you, and I hope to keep it to the last.

I regret not to be Grand pa; but I see my children so happy, so free and so resigned to their condition that really I do not pity them nor me; If they have not the tender kiss of their little ones, they have not the uneasiness, troubles and afflictions that are constantly attending the cohabitation of father and mother.

I have not given up the idea of visiting New-England; but will not undertake this voyage before September, with my son. I contemplated to take a trip to Europe in the fall; but this will depend on the price of gold, 130 is my limit. You must have in your Nevada plants many of those enumerated in my Plantae Prætereunte?

Yes! a new edition of your manual is much wanted, and you will have numerous additions to make. Remember me kindly to your good lady and to Mr. & Mrs. James and believe me ever yours
E. Durand

Plants from Utah Acad. of Nat. Sciences, in 6 fols, because, the following 1901

in my garret room in replacing in my herbar.
the rare plants which I had given my friend
Fiot, and other fresher and rare Pennsylvanian
plants collected by him.

When I began that work, I had two operations
in view: the above, and picking up for you
the Nuttall's specimens as I would find them
going on; but I soon perceived the truth of the old
French proverb: "Qui court deux lièvres n'en
attrape aucun". I was, however, more lucky,
I went successfully through the first operation;
but collecting the Nuttall's specimens, was a
complete failure. I got scarcely 50 of them!
Yesterday, having the vol. of Cruciferae in
hand, I withdrew from it more than fifty
specimens of Nuttall, and a few others from
^{Utah} California, to submit to you.

I will return to the city tomorrow and
continue the Nuttall's specimens operation. Your
3 specimens have been left in that package. Do
you want them to be returned immediately, or
shall I keep them until I have a good package
to send you.

I have been here very busy in arranging
my package of Junci, returned by Engelmann.
I have 40 species. The N. Am. herb. about 30—
and Short's no more, I believe, than 20. I send
you a specimen of a peculiar form of Juncus
Dichotomus, collected by Prof. Leidy & Canby on
the sea shores of Delaware State, where it is very
abundant. It is, so far, the most northern locality
known of this species. Eng. says that he never
saw this form before. As to the J. acutus of N. Y.
mentioned by him, it is in my herbarium and
from Collins'. The mark—Seashores of N. Y.
^{most probably,}
E. D. belongs to a specimen of Roemerianus
that has been taken from the paper of acutus.
without rubbing off the above superscription.
Thus, when, in your new edition, you come to
genus Juncus—do not mention acutus, if
it is not found by our enthusiastic botanists,
The Smiths, Canby, Commons, Leidy, &c. It is
in searching for J. acutus that Leidy's attention
was brought upon the variety of J. Dichotomus.
Canby has found Juncus Elliottii in Delaware.
Your letter, my dear Gray, has been read with

Sept
Germantown Sat. night, Aug. 8th 1866

Dear Gray,

I am just returned from the City, where I have been busy to put the last hand to Nuttall's specimens to pack them in a box which I left at a friend's house to be sent to you, on Monday, by Adams' express. There are above 600 of them and I have no doubt that a good number were sent off, as I was, at the same time, performing two other operations: Placing specimens sent to me by Dr. Chapman and withdrawing from my herbarium desiderata requested by Dr. Chapman. On another occasion, I will put aside for you such duplicates as have escaped my sight in the past one.

All the specimens that are stuck on the sheet, were unique ones in my herb. all those that are loose are represented by others, ^{which were} ~~and~~ often duplicates of ^{the} Nuttall's specimens sent to you. I have been astonished to find so few after order compositae; It appears that he ^{Nuttall} was keeping the last orders, until your general flora would be published. Try to send me other specimens of this former kind.

I paid a visit to James, this morning, to inquire about you, as I had received none of your letters since a long time. It is with a profound regret that I heard that the health of your lady was not good, I hope that the cool weather of Autumn will re-invigorate her and that she will soon be restored to her former good health. Please present her my warm regards and best wishes.

I have spent the Summer at Germantown, with my son & wife and in the vicinity of my old friend Daniel B. Smith. Germantown is a very agreeable place. Its avenues are shady and cool and the villas that adorn them are very neat and picturesque; some of them are beautiful chateaux. Its neighbourhood is also, for a botanist, one of the best localities that can be found.

I am extremely uneasy about Dr. Chapman's health. The last letter I received from him was dated South Hampton, Mass. He was saying that his trip to the North had not benefited his health and his disease was Dropsy (very bad) He intended to go and see you. I wrote to him immediately to know whether I would send him his desiderata to Cambridge or to Appleton, and have not heard of him since (about

three weeks ago) James tells me that when he left you, you had not heard of him.

I will return to the city next Saturday, this day in a week. I do not know whether I will return to my old quarters, St Lawrence Hotel or at La Pierre House, my son and wife incline for the latter. Continue to address me at the Academy, as I go there every day. Has your correspondent from Nevada sent you some of my plants of the Henry Pratten's Collection, my Veratrum Californicum for instance? How much I would like to have a souvenir of my old friend Darlington in his Darlingtonia, which I think you cultivate in your garden!

Farewell! my dear Gray, do not overwork yourself and may this letter find your lady in better health.

Believe me sincerely yours

E. Durand

I really hesitate to send my herbarium to Paris. I do not like Mr. Brongniart and those gentlemen do not seem to appreciate the fine present I intend making them.

Phil. Aug. 4th 1867

My dear Gray,

When will you announce to me that M^{rs} Gray has entirely recovered, not only from her last attack of dysentery; but also from all the ailments under which she has been so long suffering? This news will be as agreeable to you to convey, as it will be to me to receive, and I expect it very soon.

I thank you for the names of my doubtful plants, that you have been good enough as to give me. Unless wanted by you, I shall be glad to have back Silene laciniata, Nyctaginia & Portulaca which are but thinly represented in my herbarium. Can I not buy a set of Bolander or Brewer California specimens?

I send you herewith one of the four specimens of Meriania macropoda, Engelm.! that I have received from Texas. Two have been given to Engelmann, for Prof. Braun and himself, the 4th I keep, and regret not to have another for Dr. Torrey.

I have remained quietly at home this summer and I shall work hard, during the fall and winter, to prepare myself for a long trip to Europe, next Spring, provided the exchange on gold be not exorbitant.

I am now overhauling my herbarium, with your excellent manual in hand, with the view of ascertaining which of its species are not represented therein, and apply to the proper sources. I did the same with Chapman's Southern Flora, and sent him a list of desiderata, in exchange for his, which I nearly completed from my own herbarium; and among the best and unique spec. of Chapmania, and one of Elliottia.

Now I have a pretty full ^{Set} of Texas plants, and a good number of Mexican Boundary, California, Oregon, Rocky Mts, far western states, Arctic, &c. Thus, I shall be able to take with me as complete an N. Amer. herbarium as I have been able to pick up, during the fifty years of my residence in this country.

I was very much bothered this morning with a plant which you must have in your herbarium. It came from Dr. Jas. Hale of Alexandria, Louisiana, and is labelled by him Helianthus hirsutus, Raf. H. diversifolius, Ell. - It is neither, but is a remarkable var. of H. citrornabens: Its leaves are very thick and rough-bristly, round-oval, subcordate, opposite and petioled, except those at the foot of the floral branches, the scales are quite obtuse and slightly ciliate. It has the aspect of

a Silphium, which I thought it was from a beautiful specimen in Dr. Short's herbarium, the striated ligules of which appeared to have been purple.

I received, a few days ago, a letter from Dr. Robbins, announcing to me that he was not dead!

Le brave homme vit encore, grace à Dieu!

I am very glad of it. In a short personal acquaintance I had with him, at my house, 4 or 5 years ago, on his return from Texas, I was very much pleased with him.

I have also received a letter from Buckley. He appears to be somewhat tranquilized about the charges that were made against him. He attributes them to Dr. Shumart who, he says, is very unpopular in Austin and the whole of Texas.

Now farewell, my dear Gray, and my regards and best wishes to your good lady.

Cordially yours

E. Durand

When you send me anything, would you be so good as to let me have a specimen of Helianthus hirsutus, Raf. I have but a very poor one of an anomalous form with all the leaves sessile? I am

the Nuttallian Gramineae. But what can be done for him?

With my regards and good wishes for madam,

I remain, my dear Gray, yours cordially

E. Durand

The history of the 5 specimens sent to you. I
11^o 1 Is this ^{a form of} *Nyctaginia capitata*? Texas.

11^o 2 Order Nyctaginaceae? I never saw this plant and it is not in a condition to be studied. It is accompanied with the following note: If collected and cured, it has the odor of the best tobacco. in Texas.

11^o 3 called in Texas "Prostrate Chaparral". The specimens are tips of young branches, without flowers, fruits or thorns. I believe they belong to the *Castella Nicholsonii*, var. *Texasana*. They are extremely bitter.

11^o 4. This little plant grown from California seed has puzzled me considerably and I was to propose it to you as a new Silene. Its description was ready, when I found out that it was a South European Silene, *S. pendula*, L. probably introduced there by the Spaniards.

11^o 5 But now what is this: It has the calycinal scales of Dianthus; and the claws of the petals have scales as the Silenes. I am not sure that it comes also from California but introduced there likewise, if so.

11^o 6. It is the first time that I see this little plant growing extensively in our streets the least frequented - in the interstices of the bricks of the pavements. I think it is the true *Sagina apiculata*, having only 4 sepals; but Porter and Leidy say that it is the *S. procumbens*. Decide! This experience is due, I think, to the great

Phil. August 20th 1867.

My dear Dr Gray,

I hope that the present will find you comfortably at home, your good lady and yourself!

I duly received your amiable little note, dated 11th of July, and, a few days after, through our friend James, the package of Nuttallian Compositae, with the new edition of your Manual. This is a noble present, which I value highly as coming from such honorable source. Receive for it my warmest thanks!

I have perused it with great interest, and have counted about 20 genera and 300 species added to those of the preceding edition. The plates of the Cyperaceae are also a valuable addition, and the whole greatly improved. This excellent work is not yet to be found with any of our booksellers, and is expected with much impatience, by all our botanists. I have lent my copy successively, to Messrs Smith, Prof. Leidy and Porter, and other Lovers of the amiable science. all delighted with it!

I have not sent you my thanks sooner, because I knew that you were to be absent during 4 or 5 weeks. As to myself, I have remained quietly

most time and each drop of rain must have a cold wind one or two seeds, 30 plants full it is -

at my quarters, 1818 Delancey Place, where I am
very comfortably, with all my books and herbarium,
in a large room on the second story. I feel quite at home
at a sister's of my daughter in law, a sweet & amiable
Lady, who lost her husband about a year ago.

I have employed my time in replacing in my herb.
the plants you have sent me, with many others received
from different quarters. In a package from Texas, I
found only three that were doubtful and which I will
send you, with 2 or 3 others, to see if you can set me
right. Among these Texas plants, I found 2 fine spec.
of Marsilia, which, I am confident, is the M. macrospora
of Dr Engelmann, mentioned in his note to Prof. St. Branner
New species of Amer. Isoetes and Marsilia. I have
sent him the best with spores quite mature.

We have published, in our Proceedings, the new
genus Brevortia, of Alph. Wood. In fear that he
keeps a grudge against you, for your severe critic
of his last publication, I send you a copy of his description.
It is, I have no doubt a good genus: He sent a specimen
of it to the Academy, as well as a magnificent one of the
Darlingtonia, complete. Brevortia will be a real
acquisition to our floral garden. I will give you
below the history of the five plants I send you.

About three months ago, Porter, being in my
room, requested me to see my Potamogeton: He found
my collection ~~my collection~~ so interesting, having in it
a magnificent fruiting specimen of P. Robbinsii, that he
induced me to send my package to Dr Robbins. I
had then here a friend established in Boston, and I
gave my package to him and wrote to Dr Robbins
to have it called for at my friend's establishment.
The Doctor did that himself and was to send it back
to me by express. I have not heard of it since, and
I have heard that the Dr was dead.

Will you oblige me, my Dear Gray, to write to the
family and claim for me these Potamogetons,
which, ^{otherwise would} leave a considerable vacuum in my set of the
order Naiadaceae.

I have received a sad letter from poor Buckley,
who heretofore had great hopes to be appointed to the
Geological survey of Texas. His competitors have brought
against him your review of his new species of Texas
Plants and he will probably lose his situation of
Geologist of the State ad interim. It is a pity for the
man, who has two grown up daughters and no fortune
= no resources, but his scientific reputation which he has
demolished by his own want of judgement, the cause
of what you called dishonesty in his meddling with

Phil. June 24th 68.

Dear Gray,

What a troublesome affair that of preparing for a long voyage! I have not a moment rest to write a letter. Visits to make, visits to receive while you have so many things to finish.

We leave Philadelphia on Friday morning and New-York the following day early in the morning. I shall spend the evening of Friday with Dr. Torrey, and find there your package of Fendler's plants.

My son and wife come with me and I hope to see you and lady in Paris.

If you have anything to write to me; if I can do there anything for you address your letter to 86 Boulevard Beaumarchais.

My best regards to your lady, who, I hope is in better health and well disposed for her trip to Europe - and believe me most cordially

yours E. Durand

Paris, July 17th 1868

Dear Gray,

Here I am, in the middle of my family and very busy in the laboratory of the Garden of plants, unpacking the plants of your package, and of Dr Torrey's package and others which I had accumulated in the last weeks before my departure.

My herbarium and myself have been well received, as we deserve. My present is really a great acquisition to the Parisian Collections, they were rather poor in North American specimens, But they have an immense collection of Mexican plants which are now in the hands of Prof. Eugène Fournier for determination.

M^r Fournier appears to be a first rate Cryptogamist. He looked over my Ferns and found there a beautiful fern, collected by Buckley, which he said was the *Asplenium trilobum*?. He pretended also that my *Asplenium radicans* was the true *A. Californicum* and that to which I had applied the latter name, was the *radicans*. I am almost sure, however, that I am right, according to our American authorities. I would like you to make his acquaintance, when you visit Paris.

M^r F. is the secretary of the Société Botanique, He is yet a young man and is extremely amiable and gentlemanly.

I have seen Prof.^r Brongniard, Decaisne, Tulane, a great Lichen connoisseur, whose name I do not recollect, a Norwegian, an authority in the mosses, and several others. I have not seen as yet Dr. Conser for whom I had a package from you. This package is at the garden of plants and he has been informed of it. I had no time to call on Mrs. Vilmorin. The heat is very oppressive, as strong as any I have felt in the United States, and I am almost certain that she is in the country.

I am working hard, from 1 o'clock to 5, to the installation of my herbarium. I hear so much from our Americans, residents of Paris, of the uncomfortableness of the Parisian apartments during the winter, that I do all my best to return with my son in the month of October, but my family are determined to prevent it and to keep me all the winter, if not altogether. I must go see every member, go to a marriage at the North,

To a baptism, at the South, and to visit the most numerous branch in Old Brittany, the cradle of this large family of Durand, which counts now more than a hundred individuals, 4 generations, all nephews and nieces, as well as children of one brother and myself, the only two left of a family of 8 children of whom I am the youngest.

I hope this letter will reach you, before our departure for Europe and that it will find you and your excellent lady in good health. I think now that it is very doubtful whether we shall meet in Europe, because I shall avoid going to England, the voyage time me too much at my age and I am anxious to be quietly retired in my house of Delancy place Philadelphia.

Good by, my dear Gray, and believe me cordially
yours E. Durand

I have received your little note with the spec. of *Douglasia montana* - Thank you for it.

Phil. Dec. 14th 1869.

My Dear Gray.

Your favor of Saturday was received yesterday morning with a message from my family, informing me of the death of the only brother that remained to me. I was then finishing a letter to him, accepting his invitation to go again and spend with him the next summer. We were the only two remain of a family of 14 children of whom I was the youngest. It is a cause of great distress to me and to his large and affectionate family of 3 generations.

I was expecting with anxiety the news of your return and I am happy to learn that you are well—very well, and your lady in tolerable health. This I take as signifying ^{much} ~~rather~~ better than when she started for Europe. I hope the atmosphere of her native land will restore her to full health again.

Although enjoying a good share of my former health and vigor enough to walk easily half a dozen miles, I felt no inclination, last summer, for botanical excursions; but, in the last days of the fine weather, I visited several times our splendid park of 2400 acres of ground along the Schuylkill, as far as the mouth of the Wissahicon and, I saw so many interesting plants, that I felt my botanical ardor revive, and promised myself next summer, if I remained, to pay

frequent visits to this enchanting spot, with full power from the managers, to help myself botanically.

I have yet a little bit of herbarium, 4550 species, which, before separating from my grand collection, I picked up among the duplicates of the latter. I shall be able, in the park, to fill up some *Vaccinias* and I hope you will help me somewhat with some of the plants of your museum, which I may be wanting.

Can you tell me, my Dear Gray, what has become of poor Dr Robbins? When I started for France, he requested me to procure him specimens of *Potamogeton* which ^{he} thought identical with some N. American species. He also desired good specimens of the *Cardamine hirsuta*, to compare with ours. These I brought with me, and I wrote to him on my return; but I have received no answer. He may be dead, and if so, I shall send you, if you choose, that package.

Please remember me kindly and respectfully to your good lady and to Mr James and partner. Tell James that I have received the Pursh's Journal and thank him for it, Not the least doubt that Pursh's *Sium heterophyllum* be the same as *S. Carsoni*; but Carson has the precedence of publication and the Doctor holds very fast to it.

I do not regret in the least to have disposed of my herb.^m; but I am sorry that it has fallen under the supervision of

of Brongniard, for whom I have no sympathy. I like Decandrea, Tuleme, Old Sprach, Fournier, Young Poisson, the preparator, & others - but B. no!

Goodby, my Dear Gray, I always felt feel happy to hear from you and believe me, very sincerely your friend and admirer
E Durand

1818 Delancey Place.

My son begs me to be remembered most kindly to you,

Philadelphia, March 9th 1870.

My Dear Gray,

Thanks for your botanical intelligence!!!

It is proof to me that I rank yet among your numerous friends. But how do you do, and how is your good lady, how did she bear this mild winter?

I duly received your kind note of December 30th which I ought to have answered sooner, but an alternation of hard work and sore eyes have prevented me. M^r Lavallée was introduced to me by Prof. Decaisne and I was very much pleased with him. I had told him, in fact, that he was not to lose the opportunity to make your acquaintance, when you should visit Paris; that no American botanist could be of more ^{service} to him than yourself. I am glad that he has met you and pleased you. I have procured him the acquaintance of Meehan with whom he now corresponds.

In a package of R. M^t plants, which I received from Dr. C. C. Parry ^{long ago}, there was a beautiful Liatris which he had marked Squarrosa. I wrote to him that it was a mistake, and that it appeared to me quite a new species, and a very remarkable one. Having but one specimen, I am afraid to mutilate it. It seems to me to have but a single head of ~~flowers~~ of innumerable flowers.

What have you made out of it?

In a preceding letter, you tell me you are quite white bearded and looking old. White beard does not always indicate old age, I have known young men under 30 years, quite white bearded. Keep your wonderful intellect and good spirits, you shall be always young.

I do not show my beard, my wrinkles and depression of mind sufficiently I show that the weight of 70 winters bears heavily on my shoulders. I am glad now that I have disposed of my herbarium, and I hope they will appreciate it and take a good care of it. . . . Now, I amuse myself with the slender collection (single specimen) of 4500 species, merely belonging to your ~~of~~ Chapman's Floras, which I shall try to carry to 5000, and I contemplated great pleasure in my explorations of our beautiful park of 2400 acres on both shores of the Schuylkill, in which I'll be favored with a carte blanche from the Commissioners.

Farewell, dear Gray, my respectful compliments to your Lady and Mrs James and a shake hands to James

Your devoted

E. Durand

With my sons' compliments,

How those gentlemen of the Garden of Plants really shown that they appreciated my present?

Of the 200 plants which I brought from Annap.
in a poor state, the ones mentioned here are the
most interesting.

I regret exceedingly to have been prevented by
these wretched ties to pursue my explorations; but
this hot and dry summer they were plenty full
and I have no relish whatever for them.

I hope, my Dear Gray, this letter will find you
and Mrs Gray in good health.

Receive for both my best wishes

Your friend
E. Durand

Please remainder me kindly to James
and his lady

Philadelphia, Nov. 16th 1870

My Dear Gray,

I have not heard of you since an age; ~~but~~ I
have frequently thought of you and of your Dear
Wife who, I expect, has now quite recovered from
her long disease. I shall expect your answer with
the greatest impatience. I have been so absorbed
and tormented by the awful news from France
and the fate of my innumerable nephews and nieces
of whom not less than one dozen families reside
in places occupied or threatened by the Prussians,
that I have not been able to think of my correspond-
ance.

A journey to Annapolis, Md., with my children,
to accompany a Sister in law of my son, a young and
amiable Widow whom we like dearly, retained us all
the summer in that pretty little town. We had left
Philadelphia, stewing in a torrid atmosphere, and we
found Annapolis so charmingly cooled by the sea
breezes that we resolved to establish there our summer
quarters, in as much as we found agreeable acquaintances
and I expected to explore a locality the name of which

I had never seen printed in a botanical book.

My first and only good trip took me the whole day and gave me great satisfaction botanically speaking; but the next day, I felt that I was covered with a legion of sea-ticks and I swore I would not go any more in the woods and would restrict my visits to the sea shore.

This first herborization, however, was rich and gave me the expectation to add several plants to ^{the} ~~your~~ future new edition of your manual which I had not with me. I had found perfectly naturalized two European plants, Citrus scoparius and Poterium sanguisorba. The former in such quantity along the rail-road that I fancied that I was travelling in my old Bretagne. The other nearly as common and with bunches of roots which appeared 20 years old.

To my great surprise I found a Dermodium with a white flower (a thing that I had never seen before.) I was almost certain it was new and, to this day, I expected to have at least three new velvets to send you, but, on opening your manual, I find this white Dermodium, with its decumbent

and hispid branches, 2 or 3 feet long, is the D. schrotenum and in your addenda of 1868, I find my two exotic plants mentioned in nearly the same locality. Otherwise nothing new!

I should like to submit to you what I consider as a peculiar form of Montelia tamariscina, growing in abundance in the sandy shores of the bay. It is from 3 to 4 feet high, the trunk and branches of the finest pink color, very smooth & shining. It is paniculately branched ^{at the} from the base with very narrow leaves on long petioles and together 6 to 8 inches long and longer than the spikes.

The Kortlezkia virginica grows also in abundance in the brackish marshes, with leaves very finely dentate and pointed. Lonicera sempervirens et Tecoma radicans are very common, so ^{are} ~~to~~ Centaurea calyptropa, Eclipta procumbens, var. brachypoda. (plant erect generally) Potamogeton perfoliatus & Tracharis fill up the shallow waters of the bay. ^{near the shores} I found also Sabbatia angularis, fl. albo with unguiculate petals; and, with several other Panicum, the P. amarum which I had never seen in the living state.

Philadelphia, Jan. 15th 71

My dear Gray.

Receive my warmest thanks for the receipt of your last Botanical contributions, always so good and so useful. It will be an agreeable occupation for me to rearrange the orders you have so well treated, the Polemoniaceae especially which are pretty well represented in my microscopic herbarium, and some of them doubtfully named; but now, with the assistance of your present, I hope to make them all right.

I was going to submit to you several doubtful species which my poor old eyes cannot now properly investigate, among them two small Gilia which I take for G. congesta, although of different forms. The larger from California, foliis paucipartitis, 5-7. the other, less than 3 inch. high, from Colorado Mts with simple leaves. I believe that I am not mistaken in considering them forms of the same species.

I am very glad that you have not forgotten my old friend Conrad. He was a worthy man

and a good botanist. I shall inform his son, our
celebrated palaeontologist, of the honor you have
so justly paid to the memory of his good father.

You ought to induce Canby, who has leisure
and money for long journeys, and enthusiasm
for the advancement of our science, to visit the
localities where Michaux discovered the plant which
yourself and Dr Torrey have partly described under
the name of Shortia. I believe he would not refuse
under the hope of finding some other things as yet
undiscovered. Ah! if I were younger of 20 years...

My poor herbarium, now exposed to the
Prussian bombs. I pass very sad days, thinking
of the miseries of my poor country. Over 1 hundred
nephews and nieces, 3 generations, exposed to the
insults and spoliation of these worse than
Vandals.....

Yours very cordially, with my best
wishes and regards to your dear wife

E. Demaree

Phil. April 8th 1871.

My Dear Gray,

Before giving up my herbarium, which, happily has not suffered from the Russian bombs, but is not safe yet from the brutality of the communists, I withdrew from it a single specimen from the species that were abundantly represented. I constructed by these means a small herb. which contains now a little over 5000.

Except my *Veratrum Californicum* and *Oenothera biloba*, I have not a single specimen of the species to which I have attached my name. Will you be so good ^{as} to furnish me a single small specimen of such of them that have ^{been} discovered since, and of which you possess ^{sufficient} representatives in your herbarium. You will do me a great favor. This small herbarium is the hobby of my old age; not being able now to increase it by my own excursions, I beg and purchase and try to make it respectable by the number of species. It is intended, after me, for the young Philadelphian who will show the better disposition and zeal for our dear science.

Below, the list of the species to which my name has been attached. Some may have been anticipated by

others; but you will be good enough as to give me
the accepted name.

With my sincerest regards and good
wishes for your good lady, I remain affectionately

Yours E. Durand

Je souffre horriblement de l'état de ma pauvre
France!

Durand & Hildgand
~~var.~~
Argemone munita
Malacostemum muricoides
Horackia latyroides
" *Heermannii*
Gnaphalium Williamsonii
Sambucus velutina
Linosyris ceruinosa
" *leretifolia*
Asclepias macrophylla
var. *comosa*
Cuscuta subinclusa
Antirrhinum Coulterianum
var. *appendiculatum*
Mimulus exilis •
Castilleja candens
Obione bracteosa
Eriogonum roseum
" *plumata*
Heermannii
Euphorbia scellata.

Salt Lake Valley
~~var.~~
Dodecatheon integrifolium
var. *minus.*
~~*Silene californica*~~
Pratten's Plants.
Silene californica
" var. *miniata*
Symphoricarpos racemosus
var. *trilobatus*
Sericocarpus californicus
Helianthus simplex
Monolopia Heermannii
Campanula prostrata
Mimulus Prattenii
Stachys Prattenii
Eriogonum Prattenianum
Gymnadenia longispica
Schaefferia albiflora
Veratrum californicum

]

Philadelphia, April 5th 1872

Prof. Asa Gray, Cambridge

My dear Gray,

I received, yesterday, a letter, stamped Cambridge, The direction of which in a writing quite familiar and very dear to me. I opened it with haste and, what was my disappointment! it was not from my distinguished friend. Be not so parsimonious of your epistolary greetings; I have not received any letters from you since an age, and I am uneasy about you and your good lady's health.

As for me, I have been most miserable, since 6 or 8 months; my poor son has been suffering from that horrible disease called rhumatic gout and is not well yet. His wife has been sick all the while, and his mother in law, who resided with us, has died of old age and consumption.

Mental anxiety, sleepless nights and want of exercise, so ^{etc.}useful to me, have prostrated me completely, since six weeks. I have lost my strength, my appetite, my sleep, and ^{I am now} ~~made~~ a broken old man, although only 74 years; I can scarcely walk nor write. Dr. Torrey has been here, several days. I have not been able to write to him and let him

The plants have not arrived yet

Know that I was sick in bed and would be
very glad to see him.

However, I can say that we are all doing
much better and begin to take rides and smoke
promenades.

My best regards to your lady and to James' family
and compliments to Mr. Ch. Wright. Now let me know
what I owe on the Oregon plants? Hall told me
that they would be 8 cents a specimen.

Draw on me for the amount, or wait a few
days, when I can write a decent bank check.

Your very cordially

E. Durand

1337 Spruce Street, Phila

These Oregon plants, others that I am expecting &
above 700 that form my new herbarium are
destined to the botanical gallery of the Garden of
Plants of my poor Paris - very fortunately, my former
herbarium has not suffered from the Prussian
bombs, during the siege.

Adieu!

to his last resting place, Lancaster Hill,
where his remains were placed beside
those of his dear wife, my beloved
mother. No visitations were made, and
none but the family and a few intimate
friends followed his remains. This
was a request he had often made,
and although I have given offence,
no doubt, to many, I have carried
out his wishes, and feel satisfied
in having done so to those who have known him.

Excuse, my dear Sir, to have thus
trespassed upon your kindness —
my devotedness and strong love for
my dear father are my only excuse:
it is so great a consolation for me
to speak of him.

With kind regards to you and
to Mrs Gray I remain respectfully
yours truly
A. B. Brown

Philadelphia August 18th 1873

My dear Doctor Gray:

My dear old father died,
on Thursday morning last, at 10.15 A.M.,
as you, no doubt, have already, learnt,
through the medium of the newspapers.
We had gone to the country, to pass
the summer months, at a pleasant
place, some 10 miles from the city,
where we hoped that change of air
and change of scene would, probably,
contribute, in some measure, to make
my father's situation more comfortable.
Unfortunately, his disease had taken too
strong a hold, and together with his
advanced age, no favorable change
could be expected. He seemed to grow
worse, each day, and, towards the last,
he became so very excitable and
unmanageable, that we were forced

His starting traits of character. He loved you, my dear Sir, and
 always spoke of you as one of his friends for whom
 he entertained the highest esteem and affection.
 I can hardly realize that he has gone, that he is no more
 of this world and that I must now make up my mind
 never to see his smiling face again! He was a good man,
 a true Christian — a friend of the needy, and, always,
 despatched where it lay in his power to alleviate the sufferings
 of his fellow-creatures. To me he was a kind and devoted
 father and his love ^{was} never equalled; in fact, his whole
 thought ~~was~~ centered on his cher pts, as he, always,
 called me. He was buried, this morning, and was
 conducted, after the funeral service had been read at the house

to have an attendant constantly with him. After these excited turns, he became much weaker and this weakness increasing daily we were advised, by our physicians to return to the city, where he could receive constant attention from him. We, consequently, made every preparation, and brought him to town, on Monday August 26th, without his having suffered any perceptible fatigue; but, on the Wednesday following, he was seized with a severe attack of paralysis which forced him to retire to his bed which he never left alive - he died on Thursday morning of the next week, and breathed his last calmly and peacefully as he had lived in this world. You can easily imagine, my kind friend, what a severe dispensation this has been to me - You know my good father and could, easily, appreciate

Philadelphia Oct. 23^d.

Let us not change the meaning of words:

A parasitic plant is one that vegetate on another plant and feeds on its substance, You will not, I am sure, find this to be the case.

Mr Stauffer is a most excellent man, but a man of imagination and full of curious theories. I have seen a good deal of him during the six weeks I have spent in Lancaster. I am now quietly in my good city of Philadelphia, still homeless, but comfortable, in a good hotel, with my children, address your letters at the Academy.

Farewell, my dear Doctor, believe me as ever sincerely yours,

E. Durand

Keep my packages of plants as long as will, I think you will find among them some interesting specimens which you have not seen before. Keep such as may interest you particularly. When I have time I will lay aside for you, Nuttall's specimens from my herbarium.

My dear Gray,
(and please hereafter to drop your Mr of both your preceding letters) I feel more honored without it.

Such proofs of Rafinesque's dishonesty as you have found among the plants I sent you, will repeatedly be met ^{with} in my herbarium, but, depend upon it, the ever eccentric man that he was, had become insane in the last ten years of his age!

Please send to the Academy a good set of Bolander's California grasses. When inquiring for new books for our library, I wanted principally such as might be useful in the study of the equatorial plants of Dr Short's collection, such as Penzance's Venezuela, Wright's Cuba and other sets of South America.

We have Berthram's Flora Hongkongensis, a present from the author to the Academy, through Dr Asa Gray, Also the complement of Walpers' publications.

I am yet pothered with my Bethlehem Scirpus

of which I have not even a specimen with me; but Mr. Stueby Smith has given me one from this vicinity, which is, undoubtedly the same. In its dry and pressed condition, its very spongy culm has not retained its natural form, which in the green specimen was subtriangular obtuse, or rather plano-convex, with a furrow on the plane face: In the dry specimen, the culm was folded in two, and sharply 3-angular at the base of the involucre! Has not the specimen of *S. mucronatus*, Linn, on which the description has been made, been a dry one? The European specimens of this species, which I have found in the Academy's herbaria, look very much like our plant, stout, with many spikes and a bent involucre, and the culms pressed are very much in the same condition, but the description says: Culmo triquetris, Linn. Tiges triangulaires, à 3 faces concaves, les angles saillants, Lam. and this is not the case with the green Bush of Bethlehem, the culm of which is minutely dotted, whilst in *S. mucronatus* it is

obsolete transverse-undulato-ruguloso, Kunth. I now believe ^{that} my plant will have to remain *S. debilis*, forma major.

There never was in Philadelphia more enthusiasm for botany than there is now, and, at every meeting of the Academy, numerous specimens are presented to our botanical club.

During my summer peregrinations, I have paid particular attention to the roots of the *gerardia*, and I have, I believe, convinced Mr. Stauffer that these plants were not parasitic. The fibers of the roots are, it is true, armed with small glands which fix themselves to each other, as well as to pebbles, rotten wood, fibers of grass, &c. ~~but~~ It is not to seek for nourishment, but to give strength to the feeble roots of those, generally, heavy plants. Nature has given them this means of resistance to the action of the wind as she has given to vine tendrils to support themselves. I investigate the case and you will do away in your next edition ^{with} the words, "clandestine root-parasites" of page 292.